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U. S. DEPARTMENT OF AGRICULTURE.
OFFICE OF EXPERIMENT STATIONS—BULLETIN NO. 150.
A. C. TRUE, Director.

DIETARY STUDIES AT THE GOVERNMENT HOSPITAL FOR THE INSANE, WASHINGTON, D. C.

BY

H. A. PRATT AND R. D. MILNER.

WASHINGTON:
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OFFICE OF EXPERIMENT STATIONS.

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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Office of Experiment Stations,
Washington, D. C., September 8, 1904.

Sir: I have the honor to transmit herewith, and to recommend for publication as Bulletin No. 150 of this Office, a report of dietary studies carried on at the Government Hospital for the Insane, Washington, D. C., by H. A. Pratt and R. D. Milner.

The investigation covers 26 studies, four of which were made with officers and attendants and the remainder with patients. These investigations are interesting as affording data for use in determining dietary standards and also have a decided practical value, since the knowledge gained by a study of food conditions made it possible to suggest improvements in the institution diet which were immediately carried out, with the result that a considerable saving was possible without in any way lowering the quality of the diet. In plan and scope these investigations were very similar to those which were carried on for the New York State Commission in Lunacy by Prof. W. O. Atwater, chief of nutrition investigations, and the study forms a part of the investigations on the food and nutrition of man conducted under his immediate supervision. The statistics were gathered by Mr. Pratt and the calculations were made under the supervision of Mr. Milner. In planning the details of the investigation Mr. Pratt was in frequent consultation with Dr. C. F. Langworthy of this Office. Mention should be made of assistance rendered by Mr. A. B. Albro in the preparation of the report.

Respectfully,

A. C. True,
Director.

Hon. James Wilson,
Secretary of Agriculture.

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INTRODUCTION.

The series of studies herein reported were made at the U. S. Government Hospital for the Insane, which is situated on the Anacostia River, on an elevation overlooking the city of Washington, D. C. This institution is designed primarily for the benefit of persons who have become insane while performing Government duty as soldiers and sailors, although all the insane of the District of Columbia are also committed there.

The hospital seemed especially well adapted for carrying on dietary studies because, as explained below, the patients were of an exceptionally good class. In similar investigations at other institutions it has been found especially difficult to obtain correct data where the patients were violent or hostile. The interest in such work manifested by Dr. A. B. Richardson, who was then superintendent of the hospital, made it possible to undertake this series of investigations, in which the Government Hospital and the Office of Experiment Stations cooperated, and the experimental work was very largely carried on during the fiscal year 1902–3. Doctor Richardson's death occurred before the results were finally prepared for publication. His successor, Dr. W. A. White, recognized the importance of the work undertaken and gave it his active support. A summary of the investigations reported in this bulletin has appeared in a report of the hospital:[a]

PATIENTS.

The institution had at the time about 2,200 patients, of whom 1,675 were men and 525 were women. The majority of the men patients were soldiers and sailors, a large number being veterans of the civil war. The women were very largely patients committed from the District of Columbia. The general class of male patients of this institution differed in several respects from the average found in State institutions. First, they were very largely men who have become incapacitated in military service; that is, they came from a body of men who were

[a] Rpt. Govt. Hospital Insane 1903, p. 7.

chosen originally because of good physical condition. Again, they seemed to be, as a rule, patients of rather a milder type than is generally found in State hospitals, the proportion of violent and untidy patients being comparatively small. They appeared also to be rather above the average as regards education and general intelligence. The women patients were of about the same class as is found in most public institutions of a similar character.

In general, it might be expected that the patients here would be better clothed, better fed, and have more comforts and privileges than patients in State institutions, a large proportion of whom are paupers, and such was believed to be undoubtedly the case. Taken as a whole, it may be said that the amount of work done by the patients in this institution was smaller than that in the public State hospitals. The institution, however, makes a large quantity of clothing and mattresses, but no goods are made for sale outside the hospital, and much of the work which, in other institutions, is commonly done by patients is done here by hired helpers. Moreover, a large number of the patients who do work receive wages, which is not generally the case in similar institutions elsewhere in the United States.

OFFICERS AND ATTENDANTS.

The officers and attendants of the institution numbered about 660, of whom about 215 were women. The staff of attendants is well ordered and organized and seems to be particularly well fitted for the care of the patients. The school for trained nurses furnishes thoroughly competent men and women nurses, while there can be no doubt as to the high ability of the physicians in attendance.

Too much credit can not be given to the attendants and subofficers for the kind and careful assistance rendered during the progress of these studies. It was gratifying to feel that the cooperation of the whole force could be relied upon and that they were genuinely interested in the success of the studies. The kitchen help also rendered most efficient and willing service.

HOSPITAL BUILDINGS.

The grounds of the institution are large and very beautifully laid out. The hospital buildings are modern, and at the time of the investigations consisted of the following: The Toner group, comprising the Toner and Oaks building and the Toner general kitchen; the Howard Hall department, comprising Howard Hall, West Lodge, and the annex building; the west side department, comprising all the male wards situated in the Garfield, Dawes, and center buildings; the east side department, which had the care of all the female patients of the institution; the Allison buildings, for sick and decrepit patients; and

the detached buildings department, which comprised a number of buildings accommodating some 600 men. Besides the buildings for patients there was a general kitchen and steam power house, an electric power house, a storeroom, a laundry, and various trade shops, such as a carpenter's shop, blacksmith's shop, and others, where such patients as it seemed desirable were employed. In addition to these a number of new buildings have recently been completed.

There were in the whole institution about 70 wards, 57 for men and 13 for women. There were also a large number of dining rooms for attendants, outside help, and colored employees, besides the private quarters of the various heads of departments.

THE STOREROOM AND KITCHENS.

When supplies ordered for the institution are received they are placed at once in the general storeroom, or "store," as it is called. This is organized on somewhat the plan of a department store, there being a grocery department, a meat department, and a tailoring and clothing department, each under a separate head. When any kitchen, ward, dining room, or other department of the hospital desires that a given article be disbursed to it, the head of that department fills out a blank stating the article desired, which blank is placed in the hands of the storekeeper, who issues or directs the issue of the article, the blank being signed and filed with the bookkeeper. From these blanks are made up the ledgers, which show the quantities of foods disbursed to the different kitchens.

The "general kitchen" is the largest at the institution, and, except for those in the Toner, Allison, and "detached buildings" departments, supplied food for the whole institution. It is situated close by the general storeroom, or store, and contains, besides the kitchen proper and the scullery, the bakery and two dining rooms. The building is approximately in the center of the half circle of buildings which are supplied from it. Nearly all the food is sent out through tunnels on cars to the different dining rooms and wards.

The kitchen itself is in the second story of the building and is of considerable size. It is equipped with nine vegetable steamers, two large and five small steam kettles, two ranges, one of six and one of four ovens, the smaller of which is set apart for the use of special cooks for the preparation of special meals, and a large oven used for baking beans, fish, and quick biscuit. All the steamers and kettles are heated by steam. Besides the above there are four large steam kettles on the ground floor. The large rooms on this floor serve for a vegetable storeroom and scullery and for the preparing of meats and washing of the kitchen utensils.

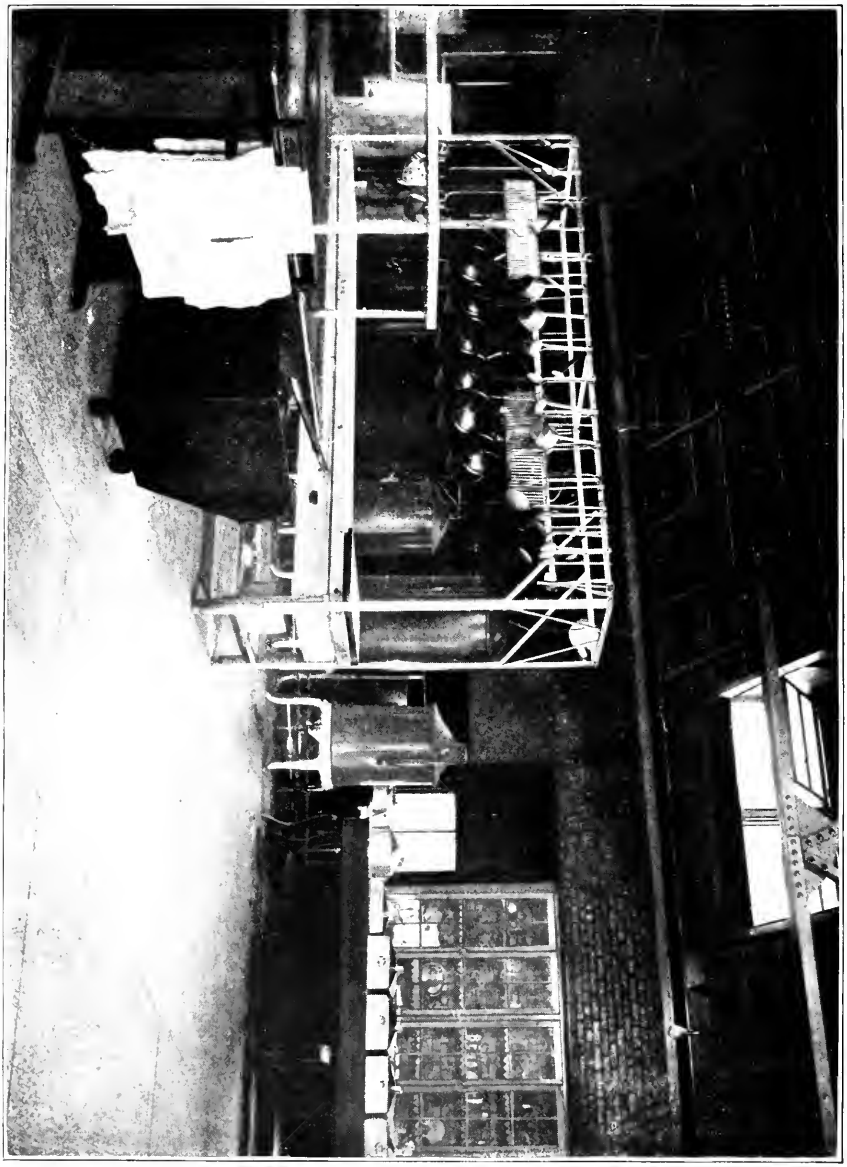
At the right of the kitchen proper, on the second story of the building, is a bakery which supplies bread, cake, biscuit, and pies for the

entire institution. This department appeared to be well adapted to the needs of the institution. Good materials were used, the work was done under the supervision of competent bakers, and the quality of the foods prepared was found to be excellent. The butcher shop, where meat is cut up, is in a part of the general storeroom and directly adjoining the kitchen.

The "detached kitchen" proper (Pl. I) is situated on the second floor of the building, there being a scullery and an attendants' dining room on the first floor. In addition to the cooking done for patients, part of the kitchen was in charge of a special cook, who prepared the food for the attendants of this section. The kitchen is abundantly supplied with modern apparatus and utensils. It has a large range, six ovens for baking, roasting, and frying, and kettles and coppers heated with steam for boiling, stewing, and making coffee, tea, etc. The kitchen is in charge of a dietitian, who superintends the cooking and has general management of the kitchen work. Everything in this department was in good condition, the food being cooked with more than usual care. Attention was given to seasoning and flavoring the different foods to a greater extent than has been observed in some similar institutions.

The "Allison kitchen" is situated in the basement of the "Allison A building." Besides the room used for cooking there are a small storeroom for food and another small room used for the storage of cooking utensils, dishes, etc. The kitchen is so far from the general storeroom that the provisions are sent to it only once each day. Two departments, viz, the family of one of the resident physicians and a group of about 100 male patients—nonworkers, mostly chronic sick, infirm, aged, and decrepit—were supplied by this kitchen. The food for the family mentioned was prepared by a special cook, but the same range was used as for the patients' food. On three sides of the kitchen are the three buildings, Allison B, C, and D, and food was sent from the kitchen through tunnels to two wards in each, namely, B1 and B2, C1 and C2, and D1 and D2. Food was carried out through the tunnels on cars to dumb-waiters in the basements of the wards and was raised to the several dining rooms. The section of the tunnel in front of the kitchen was used as a scullery and vegetable cellar. The kitchen force consisted of three colored cooks—two women and one man—and three working patients. A dietitian had charge of this kitchen.

The "Toner general kitchen" is situated between the Toner and Oaks buildings and, with them, comprises the Toner group, being connected with these buildings by tunnels. It is one story in height and is very unsatisfactory in design, as an immense stack and brick flues divide it nearly in half. This kitchen was not so well equipped as the others, having but one steamer for vegetables and one steam kettle, the rest of the cooking being done on a range of three ovens.



DETACHED KITCHEN, GOVERNMENT HOSPITAL FOR THE INSANE.

In this kitchen food was cooked for four groups, as follows: (1) Attendants and employees, male and female; (2) patients and help; (3) sick and bedridden patients, and (4) paying patients receiving a special diet. The kitchen force included two cooks, five assistants, and three working patients, and was in charge of a competent dietitian. This kitchen is soon to be replaced by a new one, hence no effort has been made lately to better the equipment. The food was well cooked and seasoned and the articles served were wholesome.

SYSTEM OF FEEDING.

The system of feeding the patients in this institution provides for three meals each day, served approximately at 7, 12, and 5 o'clock. Hot bread is served with breakfast each day. The dinner, which is served at noon, is of course the heartiest meal, and the supper is, as a rule, a rather light meal.

Six classes of meals were prepared at the institution, designated as "officers' diet," "first section's diet," "attendants' and employees' diet," "regular patients' diet," "sick diet," and "special diet." Since all but the first of these were served in the course of the studies, a brief explanation of the remaining five may be given here.

The "regular patients' diet" is that provided for the patients of the institution as a whole, and is illustrated by the menus given in connection with studies Nos. 364 and 367 on pages 20 and 34. The "attendants' and employees' diet" is of somewhat similar character, but differs in several respects in that it is prepared by special cooks, is cooked in smaller quantities, and comprises a larger proportion of such kinds of food as soups and desserts than the regular diet. This is illustrated by the menu given in connection with study No. 365 on page 24. It is the intention to arrange the menus so that the same kind of food shall not be served to patients and employees at the same meal, since the employees might lack appetite for the kind of food which they had served to the patients just before coming to their own meals.

The "first section's diet" is that provided for paying patients and others receiving special treatment. In general it was somewhat more varied than that of the attendants and employees, having, for instance, soup and dessert with each dinner. The food is cooked separately for the most part, but a few articles, such as oatmeal, are cooked together for all diets. A sample menu showing this diet is given in connection with study No. 387, page 67.

"Sick diet" and "special diet" were such as would be indicated by the designations. The former was that provided for the sick and decrepit, as shown by the menu for the study No. 366, page 30, supplied by Allison kitchen, which supplies such patients. The special diet or extra diet is that furnished according to the special orders of the physicians in charge and is prepared by the cooks who provide the

"sick diet." It consists of special foods for special cases. An example of this kind of diet is given in connection with study No. 371 on page 28.

In general the system followed in this institution provides for a change of menu each month, the menu selected covering seven days, and being repeated throughout the month. Important changes in the menu are made at the beginning of each month, when it is intended that a practically new menu shall be used. Of course a continual repetition of some staple articles is unavoidable, but, wherever possible, changes are made. Thus fresh vegetables and fruits in their season are supplied to the patients, and during the cold weather pork is often served in place of beef, the staple meat, and in their season shad and fresh herring take the place of other animal foods to a reasonable extent. It will be seen that while the food is necessarily simple in character, an attempt is made to vary the diet.

THE DIETARY STUDIES.

The investigations conducted at the Government Hospital included an examination of the statistics of the food supply with regard to the kinds, amounts, and nutritive value of the materials; determinations of the amounts and nutritive value of food actually consumed and rejected by different classes of the hospital population; and observations of the methods of handling, cooking, and serving the food.

During the period from September 1, 1902, to July 1, 1903, the experimental data were gathered for 28 dietary studies, of which 26 are here reported. These studies give data concerning the food consumption of about 1,570 male patients and 130 employees, though only 4 of the 26 studies were made with the latter. The studies with the male patients include almost the total male population of the hospital who were in a fair degree of physical health and also some sick patients. The studies with the attendants, however, include but a relatively small proportion of their total number. No studies were made with female patients. These comprised a minor portion of the total population, and for this reason and since lack of time forbade studies of the whole institution, it was deemed best to give preference to such studies as would, if possible, represent the whole male department. Each of the studies made covered one week, a period which has been found convenient and long enough, it is believed, to give a fair idea of the food consumption of any class, especially as the menu is practically the same for each week of any given month. It would have been interesting to duplicate some of the studies, since this would have furnished a check on the data here given. However, the studies were carried on with extreme care, and it is believed that the data obtained are at least sufficiently accurate for all practical purposes. The results of these studies are given on pages 19 to 71 and in Table 35 of the Appendix.

Preliminary to the experimental work statistics were compiled regarding the food supply of the whole institution. These are given in Table 36 of the Appendix and summarized on page 72. These statistics are for the fiscal year just preceding the time of the dietary studies, and consequently do not strictly apply to the time during which the studies were made. Unfortunately, when the studies were completed there was no opportunity to compile similar data for the year in which the studies were conducted, but from a cursory examination of the accounts it seemed fair to consider that the supplies for the two years did not differ materially in actual nutritive value.

EXPERIMENTAL METHODS.

Previous publications of this Office[a] have given detailed discussions of the composition and nutritive values of food, the functions of the different nutrients, the objects and methods of making dietary studies, etc. The following summarized statements will therefore suffice here:

Food is useful to the body only so far as it supplies to it the materials which it uses for growth and for repairing its wastes, replacing worn-out tissues, and supplying energy for muscular work. The materials so used are protein or nitrogenous material, fats, carbohydrates, and various salts. In addition the body requires the oxygen of the air, and water, which, though necessary for physiological reasons, is not usually called a nutrient. Some or all of these nutrients are present in all foods, though occurring in varying forms and proportions in different materials. Just how the different nutrients are used in the body in all cases may be somewhat uncertain, but it seems undoubtedly true that under ordinary conditions protein is used for building up and repairing muscular tissue, while the fats and carbohydrates, together with the surplus of protein, are oxidized to yield the energy for motion and muscular work; though if the quantities of nutrients are larger than are immediately needed the surplus may be stored in some form (chiefly fat) for future use. Salts are useful for forming bone and other parts of the body and are doubtless used in other ways also.

The final object of a dietary study is in brief to determine the quantities of nutrients and energy in the diet of a given number of persons for a definite period. The usual method of conducting a dietary study, in a family for instance, includes (1) determinations of the amounts of all the different food materials in store at the beginning of, purchased during, and remaining on hand at the end of the period of study; (2) determinations of the kinds and amounts of kitchen and table wastes, with analyses where practicable; and (3) a record of the weight, age, sex, and occupation of the different members of the group, and the

[a] See list on cover.

number of meals taken by each. From these statistics, and data regarding the composition of the food materials, as determined by analyses of samples of materials used or as assumed from previous analyses of similar materials, the total amounts of protein, fats, and carbohydrates in the diet and the average amounts consumed per man per day are computed.

In carrying out the studies here reported some modifications of this method were necessary. For instance, separate studies were made with different groups of the hospital population. Obviously, this could not be done by taking account of the amounts of food materials brought into and issued from the hospital storeroom from which all the kitchens were supplied, which would correspond to the method usually followed in a study with a family. Nor was it practicable to study the food consumption of a given group by determining the quantities of food brought into the kitchen in which the meals for the group were prepared, because in each kitchen food was prepared for several groups at once, whereas commonly but one group could be studied at a time. Data regarding the food consumption of each group were therefore obtained by taking account of the food used in the dining room in which the group was fed.

In each study all food sent from the kitchen to the dining room was weighed, as well as all not served which was returned to the kitchen after meals. After each meal the wasted food, which comprised that remaining upon the plates, which was never served again, and in some cases also that left in the serving dishes, was carefully scraped into receptacles and also weighed, each kind of food being kept by itself. The separation of the waste into the different kinds of food proved to be a matter of some considerable difficulty, for the reason that where a number of articles of food are served on the same plate the uneaten portions are apt to become more or less mixed and hence difficult to separate satisfactorily.

The figures obtained by the above-mentioned weighings give for each article the amount served, the amount returned, if any, and the amount wasted, thereby furnishing the data for determining the amount consumed. These statistics are recorded for the different studies in Table 35 in the Appendix.

The waste just referred to consisted of actually edible material that was rejected. In addition some foods contained inedible material or refuse, such foods being fish and meat containing bones, prunes containing pits, etc. The amount of such refuse was determined in each case, because such data were necessary in the computations of the quantities of nutrients in the food consumed, as hereafter explained.

The next step, that of ascertaining the amount of protein, fat, and carbohydrates in the amount of food consumed, demands particular consideration, as it differs from the methods which have been com-

monly followed in connection with dietary studies made in the household. If the percentage of protein, fat, and carbohydrates in every article that was weighed had been known, the determining of the amounts of nutrients in the food consumed would have been only a matter of calculation. Such, in fact, was the case for any foods that were eaten without cooking, as, for instance, some of the fruits. The average composition, in the uncooked state, of most food materials in common use in this country is quite well known from the results of a large number of chemical analyses. But it will be observed that the data of amounts served, obtained as explained above, are nearly all for cooked foods, and very little is definitely known regarding the composition of cooked foods. Even if a large number of analyses of cooked foods were available they would not be of much advantage, because the method of preparation of any cooked dish varies in individual cases in regard to the amounts of the several food ingredients used, the amount of water added, the length of time of cooking, etc., all of which factors influence directly the percentage composition of the cooked article.

The best method of determining the composition of the foods used would, of course, be to analyze a sample of each, but the labor and expense involved would be great and no laboratory facilities for performing such work were at hand. This method, therefore, was not attempted. Another method for ascertaining the percentage composition of cooked foods, which has been used in a considerable number of studies made elsewhere[a] and which has given results that are believed to be reasonably accurate, consists in obtaining for any given cooked food the weight and composition of each raw ingredient used in preparing it and the total weight of the cooked article, from which data the percentage composition of the cooked food may be calculated. This method was adopted in the studies here reported and may be here briefly described.

Cooked foods may be grouped, for convenience, into three classes. The first group will include such materials as meats, which in general lose in weight during cooking, largely through loss of water or water and fat. The second class will include such dishes as boiled oatmeal, rice, hominy, etc., in which the only change in proximate composition is that due to the addition of water in cooking, so that although there is no loss of nutrients, the total amount in a given weight of the cooked food is much less than in the same weight of the raw material. The third class includes prepared dishes made up of a considerable number of raw ingredients. Thus beef stew may contain beef, potatoes, onions, carrots, parsnips, etc.; and puddings may be made of flour, drippings, butter or lard, sugar, eggs, and other ingredients. During baking,

[a] New York State Com. Lunacy Rpt. 11 (1898–99), 12 (1899–1900), 13 (1900–1901).

frying, or any mode of cooking, there may be a slight loss of nutrients through volatilization of fat, burning of sugar, etc., but such losses are believed to be very small. Calculating the composition of such foods on the basis of the amount and composition of the raw ingredients used necessitates the assumption that there is no very appreciable loss of nutrients in cooking, an assumption which seems justified by the fact that in a considerable number of comparisons it has been observed that the percentages of nutrients in such made dishes, as estimated by the method used in these studies, are extremely close to the percentages found by actual analysis.

In the case of those materials in which the total amount of nutrients is the same in the cooked as in the uncooked food, the principle of the calculation is simply one of proportion, and may be stated thus:

The weight of the cooked food is to the weight of the raw food as the percentage composition of the raw food is to x (the percentage composition of the cooked food);

Or, to put it in another way:

The total amount of nutrients being the same in the cooked food as in the raw, the percentage composition of the cooked food is to be obtained by dividing the total amount of each nutrient by the total weight of the cooked food (and multiplying by 100), since the proportion of protein, fat, or carbohydrates varies directly with the change of weight of the raw material in cooking.

In calculating the composition of cooked meat from that of the uncooked, allowance must of course be made for the fat cooked out and for bones removed. The method of making the computations will perhaps be made clearer by the following typical examples, one for each of the three classes of cooked foods described above.

The first illustration is that of meat from which fat was cooked out. A lot of corned beef weighed 799 pounds before cooking and 515.5 pounds when cooked, 56 pounds of the loss in weight being due to fat cooked out. Raw corned beef as purchased has been found by average of several analyses to contain 14.8 per cent protein and 18.1 per cent fat; hence the amounts of protein and fat in the raw beef as purchased would be 118 and 145 pounds, respectively. But since 56 pounds of fat cooked out, this must be deducted from the total amount of fat, leaving 118 pounds protein and 89 pounds fat. The meat and bones after cooking weighed 515.5 pounds, of which 114 pounds was found to be bones, leaving 401.5 pounds of cooked edible meat containing 118 pounds of protein, or 29.4 per cent, and 89 pounds of fat, or 22.2 per cent. The table following summarizes the data.

TABLE 1.—*Percentages and total amounts of nutrients in raw and corned beef.*

	Total weight.	Percentage composition.			Amounts of nutrients.		
		Protein.	Fat.	Carbohydrates.	Protein.	Fat.	Carbohydrates.
	Pounds.	*Per cent.*	*Per cent.*	*Per cent.*	*Pounds.*	*Pounds.*	*Pounds.*
Corned beef, raw, as purchased	799	14.8	18.1	.....	118	145	.....
Fat cooked out	56	.....	100.0	.....	.....	56	.....
Corned beef, cooked, as purchased	515½	22.9	17.3	.....	118	89	.....
Bones removed	114	.....	.....	.....	.....	.....	.....
Cooked meat, edible portion	401½	29.4	22.2	.....	118	89	.....

The simplest of these computations is that for the class of cooked foods of which the following is typical:

In one case 75 pounds of uncooked wheat breakfast food was required for breakfast, which after cooking was found to have taken up enough water to make the weight 489.25 pounds. Raw breakfast food of this particular kind, as has been found by analyses, contains on an average 12.3 per cent protein, 1.8 per cent fat, and 74.2 per cent carbohydrates. Then by the proportion stated above, 489.25: 75:: 12.3: x, the percentage of protein in the cooked food, which upon solving the proportion is found to be 1.9 per cent. In the same way the percentages of fat and carbohydrates in the cooked material may be found. The data are summarized in the following table:

TABLE 2.—*Composition of raw and cooked wheat breakfast food.*

	Total weight.	Percentage composition.			Amounts of nutrients.		
		Protein.	Fat.	Carbohydrates.	Protein.	Fat.	Carbohydrates.
	Pounds.	*Per cent.*	*Per cent.*	*Per cent.*	*Pounds.*	*Pounds.*	*Pounds.*
Raw cereal	75.00	12.3	1.8	74.2	9.23	1.35	55.65
Cooked cereal	489.25	1.9	.3	11.4	9.23	1.35	55.65

As illustrating the method of calculating the percentage of nutrients in made dishes containing a large number of articles, the following may be cited:

A bread pudding weighing when cooked 228.5 pounds was used in one of the studies and contained, besides flavoring, the following articles: Currants (dried), raisins, sugar, eggs, evaporated cream, butter, bread. The amount of the several ingredients, the percentage composition of each, and the quantity of nutrients each would furnish are shown in the following table:

TABLE 3.—*Proportion and amount of nutrients in articles used in making bread pudding.*

	Amount used.	Percentage composition.			Amounts of nutrients.		
		Protein.	Fat.	Carbohydrates.	Protein.	Fat.	Carbohydrates.
	Pounds.	*Per cent.*	*Per cent.*	*Per cent.*	*Pounds.*	*Pounds.*	*Pounds.*
Currants, dried	4.8	2.4	1.7	74.2	0.1	0.1	3.5
Raisins	1.5	2.3	3.0	68.5	.....	.....	1.0
Sugar	20.5	.....	.....	100.0	.....	.....	20.5
Eggs as purchased	6.0	13.1	9.3	.....	.8	.6	.....
Evaporated cream	7.5	9.6	9.3	11.2	.7	.7	.8
Butter	3.9	1.0	85.0	.....	.....	3.3	.....
Bread	46.5	9.2	1.3	53.1	4.3	.6	24.7
Total	.....	.....	.....	.....	5.9	5.3	50.5

The composition of the cooked pudding was computed as protein 2.6 per cent, fat 2.3 per cent, and carbohydrates 22.1 per cent, by dividing the total quantity of each nutrient given in the table above by 228.5, the weight of the pudding when cooked and multiplying by 100, the assumption being that there would be no appreciable loss of nutrients in cooking.

Obviously considerable labor was involved in making weighings of the raw foods used in preparation of the different dishes. In dietary studies Nos. 364, 365, and 371 these weighings were made for all foods served at each meal, but in the other studies, which were made in dining rooms supplied from the larger kitchens, this was not practicable, for the reason that the cooking was done for a large number of dining rooms at the same time, and the food for one dining room could not be separated from that for the others. In order to obtain data for computing the composition of the cooked foods under such circumstances it was necessary to weigh the raw ingredients used in preparing food for all the wards supplied from the kitchen, and the number of weighings involved for such a simple dish as boiled cabbage, for example, was from 40 to 60, so that one observer could not collect data for all the foods used at each meal, in addition to gathering those for food served, returned, and wasted in the dining room. It was therefore necessary in all other studies than the three just mentioned to reduce to a minimum the labor of collecting statistics in the kitchen.

It was observed that for any given dish the cooks would use practically the same quantities of raw ingredients each time, and that the other conditions, namely, the amount of water added and the time of cooking, were generally the same; under such conditions any given dish made in the same kitchen at different times was quite uniform in character. The composition as computed at different times was likewise quite uniform, the variations being generally no greater than in the analyses of different samples of the same kind of food material. It was therefore believed to be sufficiently accurate to compute the composition of each cooked food in most cases but once for each kitchen, and use the computed value for all studies in which the particular food

was served, though in some instances a number of such determinations were made for the same food, and average values used.

All data regarding percentage composition of raw food materials were taken from a previous publication[a] of this Office giving average values for American food materials. The composition of each cooked food as computed according to the method described above is given in Table 37, and the data by which the computations were made in Table 38 of the Appendix. By use of these data and the statistics regarding the quantities of food consumed the amounts of each nutrient in the different kinds of food used were computed.

It is the usual custom to express the results of dietary studies in terms of nutrients and energy per man per day. During each study an accurate account was kept of the total number of persons served at each meal, and from these records the equivalent number of men for one day was calculated. In the studies in which both men and women were included the number of meals taken by women were computed to the equivalent number per men by assuming that one meal for a woman is equivalent to 0.8 meal for a man.

Dividing the total quantity of each nutrient consumed in each study by the number of days for one man computed as just explained gives the equivalent amount of the nutrient for one man for one day. The fuel value of the diet, that is, the amount of available energy it would furnish, was computed from the quantities of nutrients per man per day on the assumption that each gram of protein and carbohydrates would furnish 4 calories and each gram of fat 8.9 calories.[b]

The details of the dietary studies follow.

DIETARY STUDY NO. 364—CHRONIC MALE PATIENTS.

This study was made with about 550 male patients, who were nearly all chronic, mostly from middle life to old age, and appeared to be fairly quiet and orderly. Many of them were veterans of the civil war. The larger number of these patients were fed in one dining room; but in addition to these the study also included about 35 patients of a similar class, who were crippled or lame to such an extent that they could not climb the flight of steps to the larger dining room, and were therefore fed apart in a section known as "Home ward," though they received the same diet as the others.

The majority of the men in this study did no work and appeared to take very little exercise. However, 120 were classed as workers, though only a part of these did anything except very light work, many of them being employed a few hours each day in the wards or dining room.

The study began with breakfast, Tuesday, September 30, 1902, after

[a] U. S. Dept. Agr., Office of Experiment Stations Bul. 28, revised.

[b] See Connecticut Storrs Station Rpt. 1899, p. 104.

preliminary observations of 1 day, and continued for 7 days, with 21 meals. In the preliminary period the only food weighed was that for supper, but the different kinds of food in the material rejected were separated and an attempt was made to determine clearly just what was desired in carrying on the study. An accurate census of the patients at each meal showed the total number of meals taken to be 11,353, which was equivalent to 1 man for 3,784 days.

The food consumed in this study was prepared in the "detached kitchen," described on page 10, which directly adjoins the large dining hall in which these patients were served. This hall is neat and clean, large, and well heated and ventilated. The patients are served by the attendants and, owing to the nearness of the dining room to the kitchen, the food comes to the tables fairly hot, which makes it seem more appetizing.

During the week that this study was made the following menu was served:

TUESDAY, SEPTEMBER 30, 1902.

Breakfast.—Oatmeal, liver and bacon, rolls, butter, coffee.
Dinner.—Beef stew, bread, cabbage, bread pudding, butter, coffee.
Supper.—Bread, butter, prune sauce, tea. For workers, meat.

WEDNESDAY, OCTOBER 1, 1902.

Breakfast.—Oatmeal, beef stew, bread, coffee, butter.
Dinner.—Bean soup, corned beef, bread, eggplant, potatoes, crackers.
Supper.—Baked apples, bread, butter, tea. For workers, meat.

THURSDAY, OCTOBER 2, 1902.

Breakfast.—Oatmeal, prune sauce, coffee, butter, biscuit. For workers, meat.
Dinner.—Beef potpie, bread, vegetable soup, beets, crackers, butter.
Supper.—Baked beans, bread, butter, tea. For workers, meat.

FRIDAY, OCTOBER 3, 1902.

Breakfast.—Salt mackerel, bread, butter, coffee, potatoes.
Dinner.—Baked cod, bread, coffee, beets, cabbage, steamed pudding, butter.
Supper.—Tomato sauce, bread, butter, tea, cheese, crackers. For workers, meat.

SATURDAY, OCTOBER 4, 1902.

Breakfast.—Beefsteak, potatoes, bread, butter, coffee.
Dinner.—Vegetable soup, beef, crackers, bread, cabbage, hominy.
Supper.—Baked apples, bread, butter, tea. For workers, meat.

SUNDAY, OCTOBER 5, 1902.

Breakfast.—Oatmeal, bread, butter, coffee, baked beans. For workers, meat.
Dinner.—Roast beef, corn, potatoes, bread, butter, coffee, rhubarb pie.
Supper.—Bread, butter, apple jelly, cake.

MONDAY, OCTOBER 6, 1902.

Breakfast.—Coffee, sausage, hot biscuit, butter, potatoes.
Dinner.—Bean soup, shoulder, bread, cabbage, potatoes, crackers.
Supper.—Apple jelly, bread, butter, tea. For workers, beef.
Sugar and milk are added to tea and coffee in the kitchen.

As has been stated before, the menu is practically the same for each week of any particular month, so that the above may be considered as the regular patient's menu for the month of October.

In this study a system of tagging each lot of meat was followed, which somewhat simplified the matter of obtaining separate records of the amounts used from different cookings. This was quite essential because of differences in the percentage composition of different kinds of meat, and also because, in order to compute the percentage composition of each lot of cooked meat (see p. 16), it is obviously necessary to know the weight of fat which is cooked out, the change in weight of the bones in cooking, etc. Great care was taken to secure as accurate data of this sort as possible in these studies.

The statistics regarding the total amounts of food sent from the kitchen to the dining room, the amounts served to the patients, and the amounts rejected and wasted in this study are given in detail in Table 35 of the Appendix.

The following table shows the amounts of the various nutrients and the energy in the food actually eaten, as calculated per man per day, together with the amounts of nutrients and energy wasted, for the different classes of food and for the whole ration. It should be stated that, as shown by the menu above, in addition to the regular diet served to the whole group in this study the working patients were given a little extra meat at supper, in accordance with the custom of the institution. In computing the results given in the following table, however, this extra meat has been included as if forming a part of the total food for the whole group and served to all alike. This does not appreciably affect the results, because the amount of extra food for such a small proportion of the patients was very small as compared with the total food for the whole number of patients in the study.

TABLE 4.—*Nutrients and energy in food eaten and wasted in dietary study No. 364.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	17	21	.....	255	2	2	.....	26
Pork	8	17	.....	183	.....	1	.....	9
Fish	3	2	.....	30	1	1	.....	13
Butter	.....	38	.....	338	.....	.....	.....	.....
Cheese	4	5	.....	61	.....	.....	.....	.....
Evaporated cream	1	1	2	21	.....	.....	.....	.....
Total animal food	33	84	2	888	3	4	.....	48
Cereals	35	10	213	1,081	4	1	23	117
Sugars, starches, etc	.....	1	59	245	.....	.....	.....	.....
Vegetables	11	6	55	317	1	.....	7	32
Fruits	.....	.....	30	120	.....	.....	4	16
Total vegetable food	46	17	357	1,763	5	1	34	165
Miscellaneous	9	11	25	234	1	1	1	17
Total food	88	112	384	2,885	9	6	35	230

The results of the study as summarized in the table above show that the food actually eaten by the patients in this group furnished on the average 88 grams of protein and 2,885 calories of energy per man per day. As explained above, only 120 of the 550 persons studied did any work, and only a part of these did what could be considered a fair day's work; the large majority had little or no muscular exercise; so it is believed that the results of this study may be fairly compared with the commonly accepted American dietary standard for men in health with little or no muscular exercise, which calls for 90 grams of protein and 2,450 calories of energy per man per day. According to this comparison these patients would appear to have been sufficiently nourished. In support of this it may be stated that the physicians in charge considered that they were in good physical health. Many of them gained in weight after they were admitted to the hospital, while only a few lost weight. The general appearance of the men also indicated that the amounts of food consumed were sufficient for their proper maintenance.

Another indication that the food consumed was adequate is found in the amounts of food rejected. The figures in the table above show that the amount of edible food left on the plates and in the serving dishes was enough to supply 9 grams of protein and 230 calories of energy per man per day. It will be remembered that this represents food which the patients could have eaten if they had not been satisfied without it.

Statistics concerning the amounts of individual foods wasted are included in Table 35 of the Appendix, the last column of the table showing what proportion of each food provided was rejected. Apparently breakfast cereals were not relished by these patients, as about 22 per cent of the oatmeal and 47 per cent of the hominy provided were not eaten. Comparatively large amounts of beef stew and bean soup were also rejected. The figures for the whole study show that 7 per cent of the animal food and 11 per cent of the vegetable food, or 10 per cent of the total food provided, was wasted. The major portion of this consisted of material left on the plates by the patients, though some of it was material that had not been served. When the food left in the serving dishes was small in amount it was added to that rejected by the patients, but when the amount remaining after the patients were served was large it was sent back to the kitchen. The amounts thus returned are shown in the second column of Table 35 of the Appendix. During the course of this study the only articles returned were corned beef, potatoes, apple jelly, and rhubarb pie. Little or no provision was made, however, for the utilization of such "left-over" material, and most of it, particularly vegetable food other than potatoes, eventually was added to that rejected in the dining room and like other waste was used to feed pigs. The proportion of the

total food provided that was actually wasted was therefore somewhat larger than is shown by the figures in the last column of Table 35.

The proportions of rejected food noted in this study do not differ greatly from what has been found in similar studies elsewhere, and in comparison were by no means excessive. Nevertheless, a part of it could have been prevented. In the first place, where the conditions of the patients are such as to unfit them for judging of their own needs, the amount of food to be served to the individual must be decided by the attendants, and they could serve the different patients in their charge in accordance with an estimate of their needs as based to some extent on observations of their food consumption. It is believed that, if judgment were thus exercised by the attendants serving the food, the amounts rejected in cases like the above would be greatly lessened.

This would result in more than a reduction of the amount of material left on the plates by the patients, for with a better knowledge of the amount of food needed it would be possible to regulate accordingly the amounts sent from the kitchen to the dining room, so that there would be a corresponding decrease in the proportion of the food remaining after the patients had been served. In this way a considerable saving could have been made in the cost of feeding the patients included in this study under the conditions then existing.

A substitution of equally nutritious and better relished foods in place of the cereal foods and stews rejected in such large quantities could also have been made without increasing the cost of the diet. Aside from these matters there seemed little need for other changes. As regards the substitution of cheaper foods of equal nutritive value for those of higher cost, it is the impression of the observer that very little could have been done in this particular case, the conditions in this study being apparently very satisfactory in this respect.

It may be stated that the observer obtained very favorable impressions regarding the cleanliness and wholesomeness of the food and the variety of the diet served. He was constantly in the kitchen during the study and noticed that the kitchen utensils were clean, the dishes were thoroughly washed, and the floors, tables, etc., were in good condition. Nearly every article served to the patients was tasted by the cooks, to learn whether it was properly cooked and seasoned. While the diet was on the whole rather simple, there was considerable change in the staple foods from day to day, and accessories such as fresh fruits and vegetables in their season were used. It appeared upon inquiry that nearly all of the patients who were competent to judge were well satisfied with their food, very few complaints being made regarding it.

DIETARY STUDY NO. 365—ATTENDANTS AND KITCHEN EMPLOYEES.

This study was made with 58 persons, chiefly male attendants, but including 14 kitchen employees, 3 of whom were women. The greater number of the kitchen help were negroes. The food, which was the same for all, was supplied from the "detached kitchen." As a rule it was cooked separately from that for the patients, though sometimes breakfast foods and meats were cooked together for both patients and attendants. The cooking for the attendants was done by a special cook and her helper, and particular care was taken to have the food wholesome, palatable, and attractive. Considerable attention was also paid to variety in the diet. It is believed that the fare compared very favorably with that of attendants in other institutions. The dining room (Pl. II), which is neat, attractive, and cheerful, is situated on the second floor of the detached kitchen building.

This study began with breakfast, October 12, 1902, after preliminary observations of 1 day, and continued 7 days, with 21 meals. The total number of persons present at different meals was very variable, owing to leave of absence granted to attendants. The total number of meals eaten during the study, estimating 1 meal for a woman as equivalent to 0.8 meal for a man, was equivalent to 1,227, or equivalent to 1 man for 409 days.

The following menu was served during this study:

SUNDAY, OCTOBER 12, 1902.

Breakfast.—Wheat breakfast food, baked beans, fried potatoes, fried ham, biscuit, coffee.

Dinner.—Baked pork with gravy, mashed potatoes, stewed tomatoes, canned peas, apple sauce, baked custard, bread, tea.

Supper.—Fried eggs, potato cakes, grapes, jelly cake, bread, tea.

MONDAY, OCTOBER 13, 1902.

Breakfast.—Oatmeal, pork sausage, corn bread, bread, coffee.

Dinner.—Boiled cabbage, boiled potatoes, pork shoulders, canned corn, cottage pudding with sauce, bread, grapes, tea.

Supper.—Cinnamon bread, hashed potatoes, dried beef, apple sauce, bread, tea.

TUESDAY, OCTOBER 14, 1902.

Breakfast.—Wheat breakfast food, liver and bacon, fried potatoes, rolls, coffee.

Dinner.—Vegetable soup, meat pie, boiled rice, boiled beets, chocolate pudding with sauce, bread, soda crackers, tea.

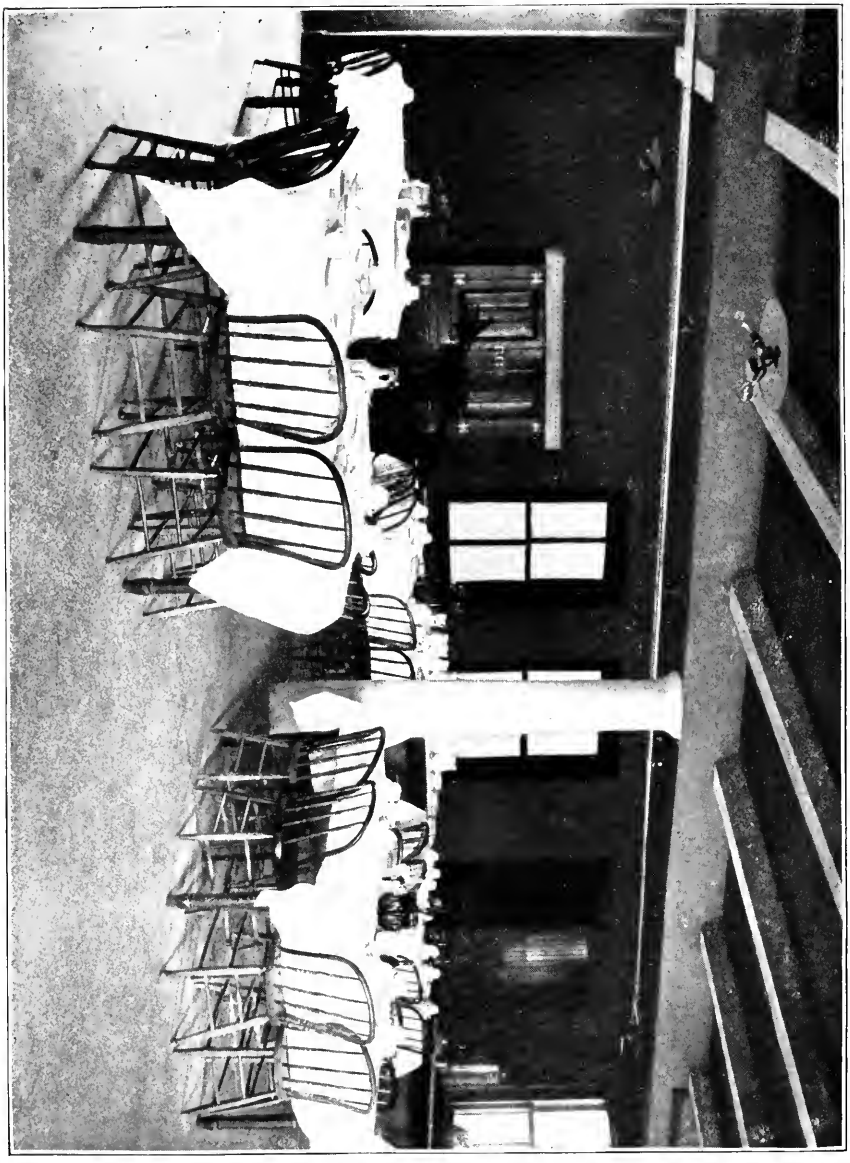
Supper.—Stewed pears, cold shoulder, creamed potatoes, bread, tea, quick biscuit.

WEDNESDAY, OCTOBER 15, 1902.

Breakfast.—Wheat breakfast food, beefsteak and onion gravy, biscuit, coffee.

Dinner.—Corned beef, cabbage, boiled potatoes, lemon ice, bread, tea.

Supper.—Bologna sausage, apple sauce, gingerbread, potato cakes, bread, tea.



ATTENDANTS' DINING ROOM, DETACHED KITCHEN BUILDING.

THURSDAY, OCTOBER 16, 1902.

Breakfast.—Wheat breakfast food, pork chops and gravy, fried potatoes, biscuit, coffee.

Dinner.—Vegetable soup, mutton stew, canned corn, apple pie, soda crackers, bread, tea.

Supper.—Cold corned beef, baked beans, fresh apples, bread, tea.

FRIDAY, OCTOBER 17, 1902.

Breakfast.—Cereal, fried potatoes, salt mackerel, rolls, coffee.

Dinner.—Stuffed cod, bacon, boiled potatoes, macaroni and tomatoes, stewed corn, chocolate custard, bread, tea.

Supper.—Scalloped fish, fried apples, bread, cheese, tea.

SATURDAY, OCTOBER 18, 1902.

Breakfast.—Oatmeal, beefsteak and gravy, fried potatoes, bread, coffee.

Dinner.—Boiled beef, baked sweet potatoes, cabbage, boiled rice, floating island pudding, bread, tea.

Supper.—Hash cakes, mush, stewed pears, Graham bread, tea.

Butter served with every meal. Sugar and milk always provided. Bread served ad libitum.

The detailed data regarding the total quantities of food served, eaten, and wasted during this study are given in Table 35 of the Appendix. The results as calculated to show the amounts of nutrients and energy per man per day in the food eaten and that rejected are summarized in Table 5.

TABLE 5.—*Nutrients and energy in food eaten and wasted in dietary study No. 365.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	19	22	2	280	5	6	.....	73
Pork, lard, etc	22	40	4	460	2	3	.....	35
Poultry	.....	.....	.....	.....	.....	.....	.....	.....
Fish, etc	8	8	2	111	4	1	2	33
Eggs	2	3	.....	35	.....	.....	.....	.....
Butter	.....	29	.....	258	.....	.....	.....	.....
Cheese	5	6	1	77	.....	.....	.....	.....
Milk (evaporated cream)	15	18	23	412	.....	.....	.....	.....
Total animal food	71	126	32	1,533	11	10	2	141
Cereals	24	8	146	751	8	3	47	247
Sugars and starches	.....	.....	140	560	.....	.....	.....	.....
Vegetables	11	14	71	453	6	9	34	240
Fruits	1	1	39	169	.....	.....	2	8
Total vegetable food	36	23	396	1,933	14	12	83	495
Miscellaneous	14	21	63	495	4	6	13	121
Total food	121	170	491	3,961	29	28	98	757

This table shows that the diet furnished in food actually eaten 121 grams of protein, 170 grams of fat, 491 grams of carbohydrates, and

3,961 calories of energy per man per day. This consumption of nutrients and especially of energy is somewhat larger than that of the commonly accepted dietary standard for men at light to moderate muscular work, which calls for 112 grams of protein and 3,050 calories of energy per man per day. A definite classification of the persons in this group as regards amount of muscular activity could not be easily made. The amount of work done by the kitchen help was apparently more than by the attendants, though that performed by the individual attendants varied. It is very probable, however, that the food consumed was more than sufficient for their needs; indeed, as regards energy, it seems excessive. Undoubtedly this excess is due to the fact that from the abundant diet provided each person selected and ate freely of that which he liked and rejected that which did not suit his taste. This would tend to increase the total amount eaten, and as preferences were largely for desserts and side dishes that contained considerable proportions of carbohydrates and fat, and the menu was generally such that these tastes might be gratified, the excess of energy in the food consumption is easily accounted for.

The conditions in this study were such as would entail considerable waste. The amount rejected in the kitchen was apparently small, but that in the dining room was large, the total amount being sufficient to supply 29 grams of protein, 28 grams of fat, 98 grams of carbohydrates, and 757 calories of energy per man per day, or 19 per cent of the protein, 14 per cent of the fat, 17 per cent of the carbohydrates, and 16 per cent of the energy in the food served. Undoubtedly this large waste was in part due to the absence of attendants from their meals, as mentioned above. No allowance was made for this contingency in preparing the meals, the food being always provided for the maximum number. On the other hand, certain of the foods called for by the menu during the study were regularly provided, notwithstanding the fact that they were not relished and consequently were not eaten. For instance, chocolate pudding, though well made, was almost never eaten. There was also considerable rejection of staple articles of diet. While this was due in part to the fact that some of the attendants did not care for those particular foods, it was also in some measure due to the fact that the amounts supplied were in excess of normal needs.

It would of course be better economy to take account of such conditions as the above in planning the diet for such a group rather than to follow a prescribed course which it is known will result in waste of food, and, after the results of this study were known, the dietitian in charge of this dining room took advantage of the facts learned and made successful efforts to reduce the waste.

DIETARY STUDY NO. 371—SICK AND BEDRIDDEN MALE PATIENTS.

This study was made with 114 sick and bedridden chronic male patients in six wards, mainly for the purpose of determining the amount of food actually eaten and wasted, so that improvements might be made wherever desirable. The six wards were included in one study because the patients were all approximately of the same class, and were all supplied from the same kitchen, and so the foods could be weighed in large lots. The kitchen helpers, 6 in number, were also included in the study. Three of them were, in fact, patients, while the 3 who were not did not receive all their food in this department, and it was estimated that the difference between the average food consumption of these 3 and that of the patients was counterbalanced by the amount of food which they received from another department. No nurses nor attendants were supplied from this kitchen.

The study began with breakfast on Friday, December 12, 1902, after a day of preliminary observations, and continued 7 days, with 21 meals. The census for the study was obtained by taking the daily population of the wards, as these patients have no way of obtaining food except from this kitchen. The total number of meals taken was 2,385, equivalent to 1 man for 795 days.

The food was served from the "Allison kitchen," and was what is known as a "sick diet," but in addition to this a special diet was provided for a varying number of patients. Those who wished received toast and milk for breakfast and supper; a few received milk ad libitum; two patients received toast and milk each day for dinner; several patients received eggs at every meal, and one patient received whatever he ordered regardless of the regular menu. However, the food of this man was not weighed, and he was not included in the group studied. During the time of this study a small amount of extra food (oranges, etc.) was served besides the regular meals to two patients, but no separate account was taken of these extras as the quantities were so small.

It will be seen from the menu given below that the diet was planned to consist largely of soft, easily masticated foods, which it was believed would be easily and readily digested. The food was all cooked with the greatest possible care, very largely under the personal supervision of a dietitian. The dishes were garnished with lettuce, parsley, etc.; much attention was paid to flavoring and seasoning, and the food was all served as attractively as possible.

FRIDAY, DECEMBER 12, 1902.

Breakfast.—Oatmeal, salt mackerel, baked potatoes, toast,[a] bread, milk, scrambled eggs,[a] hot milk,[a] coffee.

Dinner.—Corn soup, boiled fish with egg sauce, boiled rice, sweet potatoes, stewed tomatoes, caramel ice cream, bread, toast,[a] milk, tea, crackers.

Supper.—Oyster stew, shredded wheat, apple sauce, bread, toast,[a] milk, baked potatoes,[a] tea.

SATURDAY, DECEMBER 13, 1902.

Breakfast.—Oatmeal, browned potatoes, beefsteak, milk, bread, toast,[a] baked potatoes,[a] eggs,[a] coffee.

Dinner.—Vegetable soup, roast beef with gravy, creamed mashed potatoes, macaroni and cheese, bread pudding with lemon sauce, boiled rice, eggs,[a] baked potatoes,[a] tea, crackers.

Supper.—Creamed chicken, baked potatoes,[a] stewed prunes, toast,[a] bread, eggs,[a] milk, tea.

SUNDAY, DECEMBER 14, 1902.

Breakfast.—Oatmeal, beefsteak, baked potatoes, toast,[a] rolls, milk, coffee.

Dinner.—Oyster soup, fricasseed chicken, mashed potatoes, celery, lemon jelly with custard sauce, toast,[a] baked potatoes,[a] milk, bread, jelly or preserves, butter, tea, crackers.

Supper.—Cold sliced boiled beef, apple sauce, bread, toast,[a] eggs,[a] milk, baked potatoes,[a] tea, cake.

MONDAY, DECEMBER 15, 1902.

Breakfast.—Wheat breakfast food, toast,[a] baked potatoes,[a] milk, eggs,[a] steak, browned potatoes, rolls, coffee.

Dinner.—Vegetable soup, beef stew, rice, stewed corn, junket with fruit, bread, sweet potatoes, baked potatoes,[a] tea, crackers.

Supper.—Scrambled eggs, toast,[a] baked potatoes,[a] baked apples, bread, milk, tea.

TUESDAY, DECEMBER 16, 1902.

Breakfast.—Liver and bacon, baked potatoes, toast, milk, coffee.

Dinner.—Tomato soup, roast mutton, mashed potatoes, rice, canned peas, chocolate blanc mange with custard sauce, milk, eggs,[a] bread, tea, crackers.

Supper.—Creamed dried beef, baked potatoes,[a] peach sauce, milk, eggs,[a] toast,[a] bread, tea.

WEDNESDAY, DECEMBER 17, 1902.

Breakfast.—Oatmeal, steak, browned potatoes, baked potatoes,[a] eggs,[a] milk, toast,[a] bread, coffee.

Dinner.—Potato soup, chicken stew, boiled rice, browned parsnips, baked potatoes,[a] floating island pudding, toast,[a] bread, milk, tea, crackers.

Supper.—Creamed oysters, milk, toast,[a] baked potatoes,[a] eggs,[a] apple sauce, tea.

THURSDAY, DECEMBER 18, 1902.

Breakfast.—Oatmeal, veal cutlets, eggs,[a] baked potatoes,[a] milk, toast,[a] bread, coffee.

Dinner.—Roast beef, baked potatoes,[a] sweet potatoes, turnips, eggs,[a] boiled rice, stewed corn, milk, bread, rice pudding, tea, crackers.

Supper.—Baked potatoes,[a] salmon, mush, eggs,[a] toast, bread, bananas, tea.

Bread served ad libitum. Beef tea served to a few sick patients at every meal. Butter served with breakfast and supper daily. Sugar and milk provided for tea and coffee.

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[a] Special diet.

Detailed data regarding the amount of food provided, eaten, and rejected during this study are given in Table 35 of the Appendix. These are summarized in the following table, showing the amounts of nutrients and energy per man per day in the food eaten and that rejected:

TABLE 6.—*Nutrients and energy in food eaten and wasted in dietary study No. 371.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	13	12	1	163	9	9	.....	116
Poultry	3	3	.....	39	1	1	.....	13
Fish, etc	4	3	.....	43	2	1	.....	17
Eggs	8	6	.....	85	1	.....	.....	4
Butter	.....	17	.....	151	.....	.....	.....	.....
Milk	34	41	52	709	3	4	5	68
Total animal food	62	82	53	1,190	16	15	5	218
Cereals	20	7	118	614	13	2	77	378
Sugars and starches	.....	.....	55	220	.....	.....	.....	.....
Vegetables	6	5	50	269	3	2	20	109
Fruits	1	.....	27	112	.....	.....	3	12
Total vegetable food	27	12	250	1,215	16	4	100	499
Miscellaneous food	10	11	26	242	3	4	7	76
Total food	99	105	329	2,647	35	23	112	793

The food actually eaten furnished 99 grams of protein, 105 grams of fat, 329 grams of carbohydrates, and 2,647 calories of energy per man per day, amounts which are rather larger than was to be expected from the physical condition of the patients. Why this was the case it is difficult to say, but the recorded data show that a large amount of milk was used, both as a beverage and in the cooked foods. In fact, milk furnished fully 33 per cent of all the protein consumed. Milk is almost always an important article of food in the diet of the sick, and rightly so, since it affords an easy means of supplying the body with the necessary nutriment, and, moreover, is well liked by people in general and is well tolerated. These facts were evidently appreciated by the physicians in charge. It is quite probable that the patients regarded the milk as a drink rather than as a food, as such large amounts were taken. It is probably also true that the diet was much to the taste of the subjects, and this could hardly fail to be the case with those who had any appetite or capacity for appreciating their food. It is not altogether surprising, therefore, that the amounts of nutrients consumed by these patients were larger than might seem necessary.

On the other hand, it is not impossible that the digestive powers of these men were impaired to such an extent as to make the amounts of nutrients actually utilized by the body less than would be the case with people in robust health. If this be true, it would in part account for the seemingly large amounts of nutrients consumed. There is little

doubt, however, that even if the proportions of nutrients digested were much less than normal, the amounts of energy were large as compared with the actual needs of the subjects, since they had almost no muscular exercise. In fact, many were bedridden, and life with some was undoubtedly at a very low ebb, the death rate in these wards being high.

The quantity of food rejected in this study was enough to supply 35 grams of protein, 23 grams of fat, 112 grams of carbohydrates, and 793 calories of energy per man per day, or 26 per cent of the protein and 23 per cent of the energy of the total food served. These proportions are large and are especially noticeable when some of the individual items are considered. For example, the amounts of beef, veal, and mutton rejected ranged from 24 to 52 per cent of the total provided. In fact there were comparatively few articles of which less than 20 per cent was rejected.

The food sent to these wards and not served is necessarily wasted for the reason that it is for the most part of such a character that it could not be prepared for serving again, but especially because coming from the sick wards there might be danger of spreading contagious diseases.

It would perhaps be impossible to govern the quantity of food wasted by such sick, infirm, and bedridden patients as made up the group included in this study. For many of them eating is no doubt a considerable effort, and the amounts which they consume vary with their condition from day to day. It is undoubtedly true that the margin of waste in sick wards in general must necessarily be larger than that for patients in better physical condition. Nevertheless, it was the opinion of the observer that the quantities noted were somewhat larger than necessary, owing to an oversupply of food. The correctness of this deduction is shown by the fact that after the study was completed the dietitian in charge made some improvements in this respect and curtailed the waste.

DIETARY STUDY NO. 366—MALE PATIENTS, MOSTLY INVALIDS.

This study was made with a group of 52 persons, mostly in wards Nos. 1 and 2 of the Toner building. The majority were sick, infirm, and bedridden patients. Several patients not particularly ill but given a light diet, some convalescents, and a few attendants and employees who were sick at the time were also included in the group.

The study began with breakfast, November 1, 1902, and continued for 7 days, with 21 meals. The total number of meals taken during the study was 1,086, equivalent to 1 man for 362 days.

The food for these wards differed in general from that for any other group studied, since it was in part the regular hospital diet, in part the regular attendants' diet, and in part a special diet.

The menu for these wards during this study is here given. This may be taken as typical of the diet regularly supplied to these wards, especially as regards the variety of articles of food served.

SATURDAY, NOVEMBER 1, 1902.

Breakfast.—Hominy, oatmeal, ham, fried eggs or boiled eggs, toast, milk, bread, coffee.

Dinner.—Bean soup, hash, creamed mashed potatoes, beets, sandwiches,[a] custard,[a] squash pie, toast, milk, bread, tea.

Supper.—Stewed oysters,[a] stewed beef, steak, scrambled eggs[a] and fried eggs,[a] apple sauce, custard,[a] bread, toast, milk, tea.

SUNDAY, NOVEMBER 2, 1902.

Breakfast.—Oatmeal, steak, scrambled eggs and boiled eggs, toast, rolls, milk, coffee.

Dinner.—Oyster soup, stewed chicken, baked sweet potatoes, stewed corn, boiled rice, milk, lemon jelly with custard sauce, rolls, toast, tea.

Supper.—Scrambled eggs and boiled eggs, milk, bread, toast, cake, bananas, tea.

MONDAY, NOVEMBER 3, 1902.

Breakfast.—Oatmeal, hominy, fried eggs and boiled eggs, bacon, milk, biscuit, toast, coffee.

Dinner.—Bean soup, steak,[a] roast beef, mashed turnips, boiled potatoes, boiled rice, bread pudding, toast, milk, bread, tea.

Supper.—Fried eggs, boiled eggs[a] and scrambled eggs,[a] cinnamon bread, stewed dried beef, grapes, milk, bread, toast, tea.

TUESDAY, NOVEMBER 4, 1902.

Breakfast.—Oatmeal, pork chops, baked potatoes, fried eggs,[a] boiled eggs[a] and scrambled eggs,[a] corn bread, rolls, milk, toast, coffee.

Dinner.—Chicken,[a] roast beef, boiled squash, boiled rice,[a] mashed potatoes, rice pudding, milk, bread, toast, tea.

Supper.—Cold roast beef, eggs on toast,[a] fried eggs and boiled eggs, baked apples, milk, bread, toast, tea.

WEDNESDAY, NOVEMBER 5, 1902.

Breakfast.—Oatmeal, steak, potatoes, fried eggs and boiled eggs,[a] bread, toast, milk, coffee.

Dinner.—Chicken,[a] roast veal, boiled rice, baked sweet potatoes, canned peas, milk, bread, toast, tea.

Supper.—Hash, oyster stew,[a] fried eggs[a] and boiled eggs,[a] baked apples, gingerbread, toast, bread, milk, tea.

THURSDAY, NOVEMBER 6, 1902.

Breakfast.—Oatmeal,[a] mush, steak, baked potatoes, scrambled eggs,[a] fried eggs[a] and boiled eggs,[a] biscuit, toast, milk, coffee.

Dinner.—Stewed chicken, steak,[a] stewed corn, rice, beets, lemon jelly, toast, bread, milk, tea.

Supper.—Boiled eggs and scrambled eggs, custard,[a] stewed prunes, milk, bread, toast, tea.

FRIDAY, NOVEMBER 7, 1902.

Breakfast.—Oatmeal, boiled potatoes, salt mackerel, fried eggs,[a] boiled eggs[a] and scrambled eggs,[a] rolls, milk, toast, coffee.

Dinner.—Clam soup, baked cod,[a] steak,[a] oyster stew,[a] stewed tomatoes, boiled potatoes, creamed mashed potatoes, boiled cod, boiled rice, custard, bread, milk, toast, tea.

Supper.—Scalloped oysters, poached eggs on toast,[a] boiled eggs,[a] fried and scrambled eggs,[a] steak,[a] custard,[a] toast, bread, milk, grapes, tea.

Butter served with every meal. Sugar and milk provided as usual.

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[a] Special or extra diet.

The statistics regarding the quantities of food provided, eaten, rejected, etc., are given in Table 35 of the Appendix. The data regarding the quantities of nutrients and energy per man per day in the food eaten and rejected are summarized in Table 7. Considerable difficulty was experienced in this study in separating the different kinds of food rejected so as to get the weights of each. Frequently allowances and estimates had to be made, and though in some cases it was almost impossible to make satisfactory estimates, this was done as carefully as possible, and the data as recorded are believed to be not far from correct.

TABLE 7.—*Nutrients and energy in food eaten and wasted in dietary study No. 366.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	16	16	.....	206	4	4	.....	51
Pork, lard, etc	4	7	1	82	2	2	1	30
Poultry	2	2	.....	26	2	2	.....	26
Fish, etc	3	2	1	34	1	1	.....	13
Eggs	10	12	.....	147	1	1	.....	13
Butter	.....	26	.....	231	.....	7	.....	62
Milk (evaporated cream)	26	31	39	536	2	3	3	47
Total animal food	61	96	41	1,262	12	20	4	242
Cereals	21	5	126	633	15	3	86	431
Sugars and starches	.....	.....	.....	.....	.....	.....	.....	.....
Vegetables	4	3	28	154	2	1	15	77
Fruits	1	.....	15	64	.....	.....	5	20
Total vegetable food	26	8	169	851	17	4	106	528
Miscellaneous food	5	5	17	133	2	2	5	45
Total food	92	109	227	2,246	31	26	115	815

The quantities of nutrients and energy per man per day in the food eaten during this study were larger than was to be expected, being very nearly the same as in study No. 371, which was also made with patients more or less infirm. From a comparison of the figures in the table above with those in Table 6 it would appear that the quantity of carbohydrates, and consequently of energy also, was considerably smaller in the present study than in No. 371, but unfortunately the amount of sugar consumed was not learned. The observer was able to ascertain, however, that it was not large, but was probably as much as would make the total energy of the food consumed about the same as that in study No. 371, and certainly fully sufficient for the needs of the patients.

In this study, as in No. 371, the protein furnished by milk was large, being as much as the total from all vegetable foods. Eggs also formed a noticeable part of the diet, and properly, because though not always a cheap food, they are of special value in the diet of the

sick. The diet seemed on the whole to be very well suited to the needs of the patients, as there was seldom any complaint, and the physician in charge considered it very satisfactory.

The total amount of food rejected in this study was large, as in study No. 371 with patients of a similar class. From the statistics in Table 35 of the Appendix it will be observed that very large amounts of some of the individual articles were rejected. While this may have been due to some extent to the varying appetite of the patients, in the case of the cereals and vegetables it was undoubtedly due in part to an excess in the amounts served. Canned corn, peas, tomatoes, and squash, which were necessarily used at this season of the year, were apparently not much relished, and the amounts rejected were large, as was also the case with hash, which though well made was not generally liked.

In this study bread, toast, and, in one instance, grapes were the only foods returned to the kitchen which were served again. In wards of this nature apparently any reduction of the amounts rejected by the patients must be made by closely observing the amounts consumed and serving accordingly, for food once served is necessarily wasted if not eaten. It would seem that in these wards, where the time allowed for eating can be made as long as needed, smaller individual servings might be advantageous, the privilege of a second helping being allowed if more food is desired.

DIETARY STUDY NO. 367—MALE PATIENTS, NONWORKERS.

This study was made with about 103 male patients who were quiet, orderly, and in fairly good physical condition. Like the subjects of study No. 364, they were nonworkers. Meals were eaten in the large "Oaks dining room," which is situated near the kitchen where the food was cooked, so it reached the table fairly hot.

The study began with breakfast, November 12, 1902, and continued for 7 days, with 21 consecutive meals. The total number of meals taken was 2,157, or equivalent to 1 man for 719 days.

This study and No. 368, although with different classes of patients, were carried on simultaneously, as the food for both was supplied from the "Toner general kitchen," and it was possible to make the weighings for both at the same time.

The diet was the same as that served to able-bodied patients throughout the institution, the articles all coming from the same general storeroom and being practically of the same grade and quality.

The menu, which with a few unimportant exceptions was the same for both studies, is given here. This menu does not include "special diet" articles, small amounts of which were served.

WEDNESDAY, NOVEMBER 12, 1902.

Breakfast.—Bread, butter, coffee, oatmeal, hash.
Dinner.—Cabbage, boiled sweet potatoes, corned beef boiled, bread, tea.
Supper.—Canned rhubarb stewed, gingerbread, bread, butter, tea.

THURSDAY, NOVEMBER 13, 1902.

Breakfast.—Stewed prunes, mush, coffee, bread, hot rolls, butter.
Dinner.—Kidney beans boiled, bread,[a] beef stew, bean soup, crackers.
Supper.—Bread, butter, tea, beans baked.

FRIDAY, NOVEMBER 14, 1902.

Breakfast.—Bread, hot biscuit, steamed potatoes, salt mackerel boiled, butter, coffee.
Dinner.—Baked fresh cod, cucumber pickles, fruit pudding steamed, sweet potatoes, macaroni and tomatoes boiled, bread,[a] butter, coffee.
Supper.—Bread, butter, cheese, tea, stewed peaches.

SATURDAY, NOVEMBER 15, 1902.

Breakfast.—Bread, butter, coffee, hominy, beefsteak.
Dinner.—Vegetable soup, boiled cabbage, jowl or pig's head boiled, steamed potatoes, bread.
Supper.—Stewed prunes,[b] Graham bread, butter, tea.

SUNDAY, NOVEMBER 16, 1902.

Breakfast.—Wheat breakfast food, bread, hot biscuit, butter, baked beans, coffee.
Dinner.—Roast pork, steamed beets, baked sweet potatoes, bread,[a] butter, apple pie, coffee.
Supper.—Bread, butter, apple sauce, plain cake, tea.

MONDAY, NOVEMBER 17, 1902.

Breakfast.—Hot rolls, steamed sweet potatoes, hominy, fried sausage, butter, coffee.
Dinner.—Pea soup, sweet potatoes, boiled pork shoulder, cold slaw, bread,[a] crackers.
Supper.—Currant jelly, bread, cinnamon bread, apple butter, butter, tea.

TUESDAY, NOVEMBER 18, 1902.

Breakfast.—Hot rolls, butter, wheat breakfast food, liver and bacon, coffee.
Dinner.—Bread, beef stew, vegetable soup, squash pie, potatoes, stewed peas, crackers.
Supper.—Bread, butter, apple butter, finger rolls, tea.
Sugar and milk provided for beverages. This menu does not include "special diet" articles.

The usual data regarding the amounts of food provided, eaten, rejected, and returned are found in Table 35 of the Appendix. The computations of the quantities of nutrients and energy per man per day in the food eaten and that rejected are summarized in the table here given.

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[a] For study No. 368, biscuit.

[b] Study No. 368, apple sauce.

TABLE 8.—*Nutrients and energy in food eaten and wasted in dietary study No. 367.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	5	5	.....	65	2	2	.....	26
Pork, lard, etc	8	18	.....	192	2	3	.....	35
Poultry	.....	.....	.....	.....	.....	.....	.....	.....
Fish	2	1	.....	17	2	2	.....	25
Eggs	2	2	.....	26	.....	.....	.....	.....
Butter	1	29	.....	262	.....	4	.....	36
Cheese	1	1	.....	13	.....	.....	.....	.....
Milk (evaporated cream)	3	3	4	54	.....	.....	.....	.....
Total animal food	22	59	4	629	6	11	.....	122
Cereals	29	5	176	864	8	2	49	246
Sugar and starches	.....	.....	94	376	.....	.....	.....	.....
Vegetables	9	5	53	293	3	1	15	81
Fruits	1	.....	31	128	.....	.....	21	84
Total vegetable food	39	10	354	1,661	11	3	85	411
Miscellaneous food	11	13	27	268	3	3	5	58
Total food	72	82	385	2,558	20	17	90	591

Before this study began it was the impression of both the dietitian and the physician in charge that the amount of food eaten by these patients was less than might be expected, though no definite reason was assigned for this belief other than the fact that they were quiet, nonworkers. The opinion proved to be justified. The quantities of nutrients and energy, 72 grams of protein and 2,558 calories per man per day, in the food eaten were smaller than those observed in a previous study (Table 4) with a somewhat similar class of patients—though in that case some workers were included—and smaller as regards protein than the commonly accepted American dietary standard for men in health with little or no muscular exercise, namely, 90 grams of protein and 2,450 calories of energy. It might be urged that the amounts of food eaten were smaller than the patients required, but this is much to be doubted, since the amounts provided were generous and the patients were served more than they cared to eat. It may be that though well prepared the food was not suited to their tastes. Considering the nature and amount of the food which they rejected, however, it seems reasonably certain that they ate as much as they would have cared for under any circumstances, and that this was abundantly sufficient to satisfy their bodily needs, since their activity was slight.

The food rejected in this study was enough to supply 20 grams of protein, 17 grams of fat, 90 grams of carbohydrates, and 591 calories of energy per man per day, or 22 per cent of the protein, 17 per cent of the fat, 19 per cent of the carbohydrates, and 19 per cent of the energy of the total food served. It is noticeable that the percentage of protein rejected was larger than that of the carbohydrates, a condition which is not often noted in dietary studies, though observed also

in others here reported. These percentages of rejected food were higher than is believed necessary in a dining room of this kind.

The amounts of some of the individual articles rejected are worthy of note. Data of this character are given in Table 35 of the Appendix. It will be seen that the amount of meats rejected was large, as was also that of the cereal breakfast foods. This would seem to indicate either that the amounts served were too large, or that the kinds were not relished, or both. In the case of the breakfast foods, it seemed certain that too much was provided.

The rejection of cucumber pickles was undoubtedly due to an oversupply. This article is ordinarily and properly supplied merely as a relish and not as a food, and the quantity eaten is naturally not large.

As a general thing, the quantity of vegetables eaten, other than potatoes, is very apt to vary widely from day to day, as individuals differ markedly in their preference for such foods. Therefore, in studies of this kind the amount of vegetables rejected may be normally quite large, since the aim is necessarily to supply always enough for all. This would account, in part at least, for the large amount of vegetables rejected in this study.

The amount of butter rejected was larger than might have been expected, but it was not necessarily a waste, since it might have been used for cooking purposes.

The amount of apple butter rejected is believed to be due to the fact that it was not especially palatable. The amounts of apple sauce, peach sauce, and stewed prunes rejected were also large. Such fruit products hold an important place in the dietetics of this institution, being served with supper very frequently. They are relatively inexpensive, and though in themselves they have comparatively little nutritive value aside from the sugar added in preparing them, their flavor is generally relished, and they tend to increase the consumption of bread, a food which is both cheap and nutritious. Hence, even though the quantities rejected be large, their use should not be discouraged. The apparent waste could be diminished by reducing the amount served to more nearly what is likely to be eaten and by returning what is not served to the kitchen for use at another time.

It was in this study, which was the fourth made, that improvements due to the investigation began to be noticeable, especially as regards the utilization of the excess of food sent from the kitchen to the dining room but not served. Ordinarily, though in just as good condition as when it left the kitchen, it was added to that left upon the plates by the patients and sent to the garbage can. An attempt was made to have such material returned to the kitchen and to find ways of using it. About 9 per cent of the bread provided was returned in this study and used for bread pudding and in other ways; "left-over" potatoes were also carefully saved and used for hash and in other

ways, as would be the case in an ordinary household. The physician in charge of the department cooperated most heartily with the dietitian in charge of the kitchen and the observer in trying to have unused food returned to the kitchen and utilized. From the standpoint of economy the amounts saved were of some importance, and at the same time the character of the diet did not suffer.

DIETARY STUDY NO. 368—MALE PATIENTS, ACUTE CASES.

This study was conducted with 26 male patients, mostly acute cases, confined entirely to their ward and constantly under considerable nervous and mental strain.

The study began with breakfast, November 12, 1902, and continued 7 days, with 21 meals. The total number of meals taken was 546, equivalent to 1 man for 182 days. The menu was practically the same as in dietary study No. 367.

The data concerning the total amounts of food provided, returned, eaten, and rejected are shown in Table 35 of the Appendix. The quantities of nutrients and energy per man per day in the food consumed and rejected are summarized in the following table:

TABLE 9.—*Nutrients and energy in food eaten and wasted in dietary study No. 368.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	4	4	.....	52	4	3	.....	43
Pork, lard, etc	7	16	.....	170	2	5	.....	53
Fish, etc	3	2	.....	30	3	2	.....	30
Butter	1	31	.....	280	.....	4	.....	35
Cheese	1	2	.....	22	.....	.....	.....	.....
Milk (evaporated cream)	6	7	9	122	.....	.....	.....	.....
Total animal food	22	62	9	676	9	14	.....	161
Cereals	33	6	201	989	10	2	66	322
Sugars and starches	.....	.....	59	236	.....	.....	.....	.....
Vegetables	9	5	48	273	4	1	23	117
Fruits	1	.....	35	144	1	.....	38	156
Total vegetable food	43	11	343	1,642	15	3	127	595
Miscellaneous food	11	13	26	263	2	3	2	42
Total food	76	86	378	2,581	26	20	129	798

From the table above it will be seen that the food eaten furnished 76 grams of protein, 86 grams of fat, 378 grams of carbohydrates, and 2,581 calories of energy per man per day, or practically the same amounts as were found in the preceding study. While these quantities are somewhat smaller than might have been anticipated, there is no doubt that the patients had all they cared to eat. The amounts served to them were generous and considerable food was left uneaten, 25 per cent of the protein and 24 per cent of the energy of the food served being rejected. From the statistics given in Table 35 of the

Appendix it will be observed that this was not confined to any one kind of food, but that a large proportion of different foods was rejected. It seems quite probable from these data that the amounts provided were too large for the appetites, if not the needs, of the patients. Had they eaten all the food served to them the amounts of nutrients per man per day would have been 102 grams of protein, 106 grams of fat, and 507 grams of carbohydrates, with 3,379 calories of energy, which, as regards energy, would be sufficient for the average man at ordinary muscular work, and perhaps nearly sufficient as regards protein also.

DIETARY STUDY NO. 369—ATTENDANTS, HOUSE GIRLS, ETC.

This and the following study, No. 370, were carried on simultaneously, with attendants, house girls, waiters, etc., one group having their meals in the dining room of the Toner building and the other in that of the Oaks building. All three meals, breakfast, dinner, and supper, were served twice each day in both dining rooms, so that for each article served four weighings were necessary. The studies began on Monday, November 24, 1902, and ended December 1. They covered 7 days, with 21 meals, as usual, since no account was taken of the food on November 27 (Thanksgiving day), when the regular menu was not served.

Study No. 369 comprised 14 persons, 10 males and 4 females. The total number of meals taken was equivalent to 280 meals per man, or equivalent to 1 man 93 days. In order to compute the equivalent number of meals per man from the total number eaten, it was assumed that the average food consumption per woman was 0.8 as much as that per man; thus 21 meals per woman would be 16.8 meals per man.

The menu served during these two studies is given herewith. This was supposed to be the same as that for attendants throughout the institution.

MONDAY, NOVEMBER 24, 1902.

Breakfast.—Prunes,[a] oatmeal, sausage, fried hominy, Graham rolls, coffee.

Dinner.—Pea soup, pork shoulder, creamed mashed potatoes, boiled rice, mashed turnips, baked custard, bread, crackers, tea.

Supper.—Cold roast beef, fried potatoes, stewed prunes, bread, tea.

TUESDAY, NOVEMBER 25, 1902.

Breakfast.—Oatmeal, liver and bacon, sweet potatoes, rolls, coffee.

Dinner.—Roast beef, baked sweet potatoes, boiled cabbage, tomato soup, rhubarb pie, bread, tea, crackers.

Supper.—Cold shoulder, fried potatoes, apple sauce, bread, tea.

WEDNESDAY, NOVEMBER 26, 1902.

Breakfast.—Oatmeal, fried ham, baked potatoes, hot rolls, coffee.

Dinner.—Bean soup, roast or corned beef, mashed potatoes, mashed turnips, cabbage slaw, rice pudding, bread, tea, crackers.

Supper.—Cold corned beef, baked apples, bread, tea.

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[a] Served only to subjects of study No. 370.

FRIDAY, NOVEMBER 28, 1902.

Breakfast.—Oatmeal, salt mackerel, baked potatoes, baked beans, biscuit, coffee.

Dinner.—Oyster soup, roast beef, baked cod, boiled potatoes, boiled beets, boiled rice, tea.

Supper.—Deviled eggs, cheese, celery, peach sauce, bread, soda biscuit, tea.

SATURDAY, NOVEMBER 29, 1902.

Breakfast.—Oatmeal, beefsteak, baked potatoes, bread, coffee.

Dinner.—Vegetable soup, boiled beef, bread dressing, sweet potatoes, boiled squash, cabbage slaw, blanc mange pudding with sauce, bread, crackers, coffee.

Supper.—Stewed beef, prune sauce, Graham bread, tea.

SUNDAY, NOVEMBER 30, 1902.

Breakfast.—Oatmeal, fried ham, baked beans, baked sweet potatoes, biscuit, coffee.

Dinner.—Roast beef, mashed potatoes, turnips, cranberry sauce, mince pie, bread, tea.

Supper.—Peach sauce, cake, bread, tea.

MONDAY, DECEMBER 1, 1902.

Breakfast.—Oatmeal, sausage, fried hominy, hot rolls, coffee.

Dinner.—Pea soup, browned potatoes, boiled shoulder, boiled cabbage, cranberry sauce, bread pudding with lemon sauce, bread, tea, crackers.

Supper.—Dried beef, mashed browned potatoes, cinnamon bread, apple sauce, bread, tea.

Butter served as desired. Bread ad libitum. Sugar and milk provided.

The detailed statistics concerning the food in this study, No. 369, are given in Table 35 of the Appendix. The following table summarizes the results as computed to show the quantities of nutrients and energy per man per day in the food eaten and in that rejected:

TABLE 10.—*Nutrients and energy in food eaten and wasted in dietary study No. 369.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	22	25	1	315	23	27	1	336
Pork	12	24	.....	262	6	10	.....	113
Fish	3	2	.....	30	3	3	.....	39
Eggs	1	1	.....	12	.....	.....	.....	.....
Butter	1	48	.....	431	.....	8	.....	71
Cheese	2	3	.....	35	.....	.....	.....	.....
Milk	5	6	8	105	.....	.....	.....	.....
Total animal food	46	109	9	1,190	32	48	1	559
Cereals	29	5	166	825	20	5	113	577
Sugars and starches	.....	.....	33	132	.....	.....	.....	.....
Vegetables	13	10	85	481	14	9	75	436
Fruits	.....	.....	33	132	1	.....	38	156
Total vegetable food	42	15	317	1,570	35	14	226	1,169
Miscellaneous food	12	17	44	375	5	5	18	136
Total food	100	141	370	3,135	72	67	245	1,864

The average amount of muscular work performed by the persons in this group might perhaps be considered equivalent to that of a man engaged at light to moderate muscular work. The commonly accepted dietary standard for this calls for 112 grams of protein and 3,050 calories of energy per day. The results of this study were a little lower than this standard as regards protein, and slightly above as regards energy. Apparently, therefore, the food consumption of these persons was sufficient for their bodily needs. Another indication that such was the case is found in the fact that the food provided was greatly in excess of what was eaten, which would naturally indicate an oversupply rather than the opposite, when as was the case the diet was reasonably varied and the foods were well cooked.

The amount of food rejected in this study was very large, and contained about 42 per cent of the protein and 37 per cent of the energy of the total food served. In addition to this a considerable proportion of some of the articles brought to the dining room was returned to the kitchen. That the food provided was excessive is more plainly shown by the fact that had all the food served been eaten there would have been a consumption of 172 grams of protein, 208 grams of fat, and 615 grams of carbohydrates per man per day.

DIETARY STUDY NO. 370—ATTENDANTS, HOUSE GIRLS, ETC.

The group included in this study comprised 22 males and 6 females (house girls, attendants, waiters, etc.). As previously noted, the study was carried on at the same time and under the same conditions as No. 369. An accurate account of the number of meals eaten was kept as usual, but, unfortunately, such data for the first 3 days of the study were lost. However, it is believed that the number did not vary greatly from day to day, and that no considerable error is introduced by assuming that the average attendance at each meal of the seven days was the same as during the last four days. Making this assumption and counting the food eaten by 1 woman as equal to 0.8 that of 1 man, the total number of meals taken was equivalent to 563 for a man, or 1 man for 188 days.

The menu served was the same as in dietary No. 369.

The food statistics in detail are found in Table 35 of the Appendix. The quantities of nutrients and energy per man per day in the food eaten and that rejected are summarized in the following table:

TABLE 11.—*Nutrients and energy in food eaten and wasted in dietary study No. 370.*

[Quantities per man per day.]

Food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	26	27	.....	344	12	12	1	159
Pork, lard, etc	18	34	1	379	4	7	.....	78
Fish, etc	3	2	.....	29	3	3	.....	39
Eggs	3	3	.....	39	1	1	.....	13
Butter	1	80	.....	716	.....	.....	.....	.....
Cheese	1	2	.....	22	.....	.....	.....	.....
Milk	10	12	15	207	.....	.....	.....	.....
Evaporated cream	2	2	2	34	.....	.....	.....	.....
Total animal food	64	162	18	1,770	20	23	1	289
Cereals	41	11	244	1,238	11	2	63	314
Sugars and starches	.....	.....	139	556	.....	.....	.....	.....
Vegetables	14	10	83	477	10	6	51	297
Fruits	1	.....	45	184	1	.....	37	152
Total vegetable food	56	21	511	2,455	22	8	151	763
Miscellaneous food	11	15	49	373	3	5	5	76
Total food	131	198	578	4,598	45	36	157	1,128

The average food consumption in this dietary study, 131 grams of protein and 4,598 calories of energy per man per day, is much larger than that of the persons with similar occupation included in the preceding study; in fact it is slightly higher in protein and decidedly higher in energy than the commonly accepted American standard for a man at moderately active muscular work, i. e., 125 grams of protein and 3,400 calories of energy. Apparently these persons had large appetites, or they ate more than they actually needed. They certainly ate much more than ordinary people doing equivalent work.

The excess of energy in the diet is largely due to the unusual amount of sugar eaten. In no other study made in this institution, with the exception of No. 365 with a group of persons similar to those in the present study, was so much sugar consumed. In No. 369, the preceding study with a similar group, the consumption of sugar was no more than is commonly found.

The food rejected in this study contained 26 per cent of the protein and 20 per cent of the energy in the total food served. While this was larger than seemed necessary, it was very much smaller than in the preceding study. The difference in the amounts rejected is accounted for by the difference in amounts eaten, for the total amount of food served per man per day was 3 per cent larger in study No. 370 than in No. 369. From a comparison of the amounts wasted in the two studies it is apparent that the food provided in study No. 369 could have been reduced at least 25 per cent and still leave an excess over the amount actually eaten.

DIETARY STUDY NO. 372—MALE PATIENTS, LARGELY NEGROES, CRIMINAL INSANE.

The patients in this study occupied four wards in the Howard Hall building, which is the criminal department of the institution. The population of this department is composed largely of criminal insane sent from prisons and reformatories, though it includes also those who were committed there directly because of criminal acts due to their demented condition. The patients in these four wards ate in the same dining room. About 65 were included in the study, all males, and all but 16 were negroes. They were in good physical health, and many appeared to be robust. Among this group were 19 who were classed as workers, and a few of them did considerable work, though for short periods only. It seems fair to consider therefore that they did not perform any greater amount of muscular work than men ordinarily engaged at light muscular work. All the patients included in the group took some daily exercise walking, but the amount was probably comparatively small.

During the study 9 attendants also ate in this dining room. Their food was for the most part served separately, though some of it was prepared with that of the patients. These men have been included in this study for the reason that no separate classification could be easily made of them, and it seemed practically impossible to keep their food entirely separate.

The study began with breakfast, February 2, 1903, and continued 7 days, with 21 meals. The total number of meals taken by patients and attendants was 1,556, equivalent to 1 man for 519 days.

During the week of this study the following menu was served:

MONDAY, FEBRUARY 2, 1903.

Breakfast.—Oatmeal,[a] fried sausage, boiled hominy, Graham biscuit, butter, coffee.

Dinner.—Bean soup, boiled shoulder, steamed potatoes, boiled cabbage,[a] boiled rice, apple dumplings,[a] soda crackers, bread.

Supper.—Boiled beef[b] and pigs feet,[a] rhubarb sauce, doughnuts, bread, butter, tea.

TUESDAY, FEBRUARY 3, 1903.

Breakfast.—Wheat breakfast food, apple sauce, beef stew,[b] pork chops and gravy,[a] baked potatoes,[ab] hot rolls, coffee, butter.

Dinner.—Stewed peas,[a] pork stew, boiled Lima beans, bread pudding, steamed browned potatoes,[a] roast pork with gravy,[a] bread, butter, coffee.

Supper.—Apple sauce, smoked herring,[a] shoulders,[b] fritters,[a] rolls, butter, tea.

WEDNESDAY, FEBRUARY 4, 1903.

Breakfast.—Oatmeal, liver and bacon,[a] stewed potatoes,[ab] beef stew,[b] rolls, butter, coffee.

Dinner.—Bean soup, corned beef, steamed potatoes, boiled cabbage, tapioca pudding,[a] crackers, bread.

Supper.—Rhubarb sauce, fried potatoes,[a] cold corned beef,[b] head-cheese,[a] ginger cake, bread, butter, tea.

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[a] For attendants. [b] For working patients.

THURSDAY, FEBRUARY 5, 1903.

Breakfast.—Liver and bacon, corn-meal mush, beefsteak,[a] baked potatoes,[a] biscuit, butter, coffee.

Dinner.—Tomato soup, beef potpie, creamed mashed potatoes,[a] mashed turnips,[a] succotash, bread.

Supper.—Baked beans, beef potpie,[b] corned beef,[a] soda biscuit, bread, apple sauce,[a] butter, tea.

FRIDAY, FEBRUARY 6, 1903.

Breakfast.—Boiled salt cod, steamed potatoes, fried mush,[a] oatmeal,[a] fried salt mackerel,[a] bread, butter, coffee.

Dinner.—Bean soup, baked cod, cucumber pickles, boiled rice, boiled macaroni, steamed pudding, tomato soup,[a] crackers, steamed browned potatoes,[a] boiled beef,[a] rice pudding,[a] bread.

Supper.—Tomato preserves,[a] pork shoulder,[b] codfish cakes,[a] soda biscuit,[a] apple sauce, bread, butter, tea.

SATURDAY, FEBRUARY 7, 1903.

Breakfast.—Oatmeal,[a] hominy, beefsteak and gravy, corn bread,[a] baked potatoes, bread.

Dinner.—Vegetable soup, pork heads, boiled turnips, browned potatoes,[a] stewed potatoes, stewed peas,[a] roast beef and gravy,[a] crackers, bread.

Supper.—Boiled beef,[b] rhubarb sauce, bread, roast pork,[a] prune sauce,[a] butter, tea.

SUNDAY, FEBRUARY 8, 1903.

Breakfast.—Baked beans, wheat breakfast food,[a] fried ham,[a b] fried potatoes,[a] rolls, butter, coffee.

Dinner.—Vegetable soup,[a] roast pork with gravy, cucumber pickles, steamed potatoes, stewed tomatoes, apple pie, creamed mashed potatoes,[a] cornstarch pudding,[a] bread, coffee.

Supper.—Stewed prunes, plain cake, bread, baked beans,[a] jelly cake,[a] celery salad.[a]

Attendants received 2 quarts milk with breakfast and supper, 1 quart with dinner. Sugar and milk are added in the kitchen to tea and coffee supplied to patients. Butter supplied with each meal to attendants. Bread supplied ad libitum.

The data regarding the kinds and amounts of food provided, returned to the kitchen, eaten, and rejected are given in detail for this study in Table 35 of the Appendix. The following table summarizes the results:

TABLE 12.—*Nutrients and energy in food eaten and wasted in dietary study No. 372.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	14	14	.....	181	2	2	.....	26
Pork	19	31	.....	352	1	2	.....	22
Fish	4	.....	.....	16	4	1	.....	25
Butter	.....	20	.....	178	.....	11	.....	97
Milk	1	2	2	29	.....	.....	.....	.....
Total animal food	38	67	2	756	7	16	.....	170

[a] For attendants. [b] For working patients.

TABLE 12.—*Nutrients and energy in food eaten and wasted in dietary study No. 372*—Con.

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Cereals	35	12	216	1,111	14	3	84	419
Sugars and starches			24	96				
Vegetables	10	4	54	291	4	1	23	117
Fruits			23	92			4	16
Total vegetable food	45	16	317	1,590	18	4	111	552
Miscellaneous food	12	15	29	298	2	2	1	30
Total food	95	98	348	2,644	27	22	112	752

The data in the table show that the amounts of nutrients and energy in the food actually eaten, 95 grams of protein and 2,644 calories of energy, were not particularly different from those found in study No. 364, being a trifle higher in protein and lower in energy. This is about what would be expected, since the subjects in both studies had about the same amount of muscular exercise.

In this study about 22 per cent of the total protein and energy of the food served was rejected. The amount of animal food other than fish rejected was small, but fish was evidently not relished by these patients as a considerable proportion of that served was not eaten. Most of the desserts served were eaten, though it should be mentioned that only the attendants received tapioca, rice, and cornstarch puddings. Other articles on the menu that were prepared expressly for the attendants were smoked herring, pork chops, head-cheese, boiled beef, fritters, corn bread, fried potatoes, celery salad, tomato preserves, apple dumplings, and codfish cakes. Any portions of these articles left after the attendants were served were, however, saved for the working patients. The amount of cereal foods rejected was large. The wheat breakfast foods, and in fact all the breakfast foods, were evidently not relished. The amount of bread rejected, largely crusts, was greater than was to be expected. The bread served in this study was of good quality, and there was apparently no reason why the crusts should not be eaten. The patients in general preferred bread not over 24 hours old.

The amount of butter rejected was much larger in this department than was usually the case. It was noticed that butter was served at some meals where the menu did not provide for it. It seems probable that the amount supplied was in excess of what was needed. A large part of the waste of food in this study may probably be accounted for by the fact that the portions for each patient were placed on his plate before he sat down to the table, and so any excess was necessarily wasted. This method of serving, which is generally wasteful, was

followed in only a few wards, and may not have been necessary here, though the attendant in charge gave it as his opinion that the patients were not intelligent enough to be supplied in the customary way.

The attendant in charge also stated that no attempt was made as a rule to return to the kitchen any foods not served except steamed potatoes, bread, and meat. During the time of this study no food was returned (Table 35 of the Appendix), hence the food provided and that served were the same, and of course equal to the sum of the food rejected and eaten.

Although the proportion of food rejected was somewhat larger than might seem necessary, even with the method of serving followed, yet the amounts sent to this dining room are probably as a rule not very much larger than they should be, to allow for the varying appetites of the men. The attendant in charge believed that though amply sufficient they were none too great.

DIETARY STUDY NO. 373—MALE PATIENTS, CRIMINAL INSANE.

This study was made with about 90 patients and 10 attendants, all white males, fed in Howard Hall dining room No. 2, the food being supplied from the general kitchen. The patients were insane criminals, as in the preceding study. A few of them did a little work in the wards and dining room, but the larger number had no regular occupation. They all appeared to be in good physical health and well nourished. It was the opinion of the persons in charge of the dining room that the men were very hearty eaters.

The study began with breakfast, February 10, 1903, and continued 7 days. The total number of meals taken was 2,080, equivalent to 1 man for 693 days.

The menu served varied little from that of the preceding study.

As was the case in the preceding study, some of the foods were provided primarily for the attendants, namely, fried chipped beef, Bologna sausage, mutton chops and roast, boiled pork, head-cheese, corn bread, cucumber pickles, stewed peas, fried and boiled potatoes, baked sweet potatoes, preserved tomatoes, baked apples, cornstarch pudding, and rice pudding. However, any portions left after the attendants were served were given to the patients.

The data regarding the kinds and amounts of food provided, etc., are given in Table 35 of the Appendix. In the following table are summarized the figures showing the quantities of nutrients and energy per man per day in the food eaten and rejected:

TABLE 13.—*Nutrients and energy in food eaten and wasted in dietary study No. 373.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	19	19	.....	245	3	3	.....	39
Pork	6	12	.....	131	1	1	.....	13
Fish	5	5	.....	64	1	1	.....	13
Butter	.....	21	.....	187	.....	5	.....	44
Milk	2	2	3	38	.....	.....	.....	.....
Total animal food	32	59	3	665	5	10	.....	109
Cereals	38	13	240	1,228	8	1	48	233
Sugar and starches	.....	.....	12	48	.....	.....	.....	.....
Vegetables	11	5	52	296	2	1	8	49
Fruits	.....	.....	36	144	.....	.....	4	16
Total vegetable food	49	18	340	1,716	10	2	60	298
Miscellaneous food	13	16	26	299	2	2	3	38
Total food	94	93	369	2,680	17	14	63	445

The average quantities of protein, 94 grams, and energy, 2,680 calories, per man per day in the food eaten by this group were almost identical with those noted in the preceding study and practically conform to the commonly accepted standard for the ordinary man in health with little muscular activity. It is interesting to note that in this study the proportion of total protein furnished by cereal foods is larger than has been commonly found in dietary studies of American families.

The quantity of nutrients and energy rejected was nearly 40 per cent less than that in the preceding study. Considering the proportions of the individual articles rejected (Table 35 of the Appendix), it will be observed that the largest waste was with the cereal breakfast foods and similar articles. This may have been due to an excessive supply. In the case of most of the other materials the amount rejected was perhaps hardly more than might be expected under the circumstances, though 18 per cent for the bread is large for bread of such good quality.

During this study the observer was informed that the quantities of rejected material were very small as compared with what had previously been brought away. Doubtless more care was observed in serving than was formerly the case, yet no complaints were heard that the quantities provided were not sufficient. The moral influence of an investigation like this is by no means inconsiderable, and it happens very naturally that more care is taken by persons who feel that their work is under observation. It was the opinion of the superintendent that this fact alone had been responsible for much improvement in this respect in this and other departments of the institution.

DIETARY STUDY NO. 374—MALE PATIENTS, NEGROES.

This study was made with about 170 male patients, occupying West Lodge, in the Howard Hall department, all of whom were insane negroes other than criminals. From 15 to 30 were in restraint a large part of the time and many were very violent at certain periods. Most of them were in good physical health and were considered very hearty eaters, being noticeably fond of meat. From 70 to 80 of these patients did a fairly large amount of work, many of them being employed out of doors all day, digging tunnels, improving driveways, etc., and handling pick and shovel for 7 or 8 hours a day.

Most of the patients in this group had their meals in the regular dining room, but 18, who were aged, crippled, or infirm, did not come there, though they received the same diet as those served in the dining room. During the week of this study 5 patients received at times "special" or "sick" diet, but the amount of such foods was small.

This study began with breakfast, February 20, 1903, and continued 7 days. The total number of meals taken was 3,549, equivalent to 1 man for 1,183 days.

The following menu was served during this study:

FRIDAY, FEBRUARY 20, 1903.

Breakfast.—Boiled salt cod, steamed potatoes, hot rolls, butter, coffee.
Dinner.—Bean soup, baked haddock with dressing, macaroni and tomatoes, boiled rice, finger rolls, steamed pudding with sauce, bread.
Supper.—Evaporated peach sauce, head-cheese,[a] bread, butter, tea.

SATURDAY, FEBRUARY 21, 1903.

Breakfast.—Fried hominy, beefsteak, bread, butter, coffee.
Dinner.—Boiled beef, mashed turnips, steamed potatoes, soup, bread.
Supper.—Roast beef,[a] apple jelly, Graham bread, butter, tea.

SUNDAY, FEBRUARY 22, 1903.

Breakfast.—Baked beans, hash, fried ham,[a] wheat breakfast food, bread, butter, coffee.
Dinner.—Roast beef, steamed potatoes, stewed tomatoes, apple pie, biscuit, bread, butter, coffee.
Supper.—Stewed peaches, plain cake, bread, butter, tea.

MONDAY, FEBRUARY 23, 1903.

Breakfast.—Pork sausage, hominy, bread, butter, coffee.
Dinner.—Bean soup, boiled shoulder, steamed potatoes, boiled rice, bread.
Supper.—Cinnamon bread, prune sauce, cold boiled shoulder,[a] bread, butter, tea.

TUESDAY, FEBRUARY 24, 1903.

Breakfast.—Oatmeal, liver and bacon, bread, butter, coffee.
Dinner.—Beef stew, boiled beets, steamed pudding with sauce, bread or rolls, butter, coffee.
Supper.—Chops,[a] evaporated apple sauce, soda biscuit, butter, tea.

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[a] For working patients.

WEDNESDAY, FEBRUARY 25, 1903.

Breakfast.—Beef stew, oatmeal, rolls, butter, coffee.
Dinner.—Bean soup, corn beef, boiled rice, cucumber pickles, soda biscuit.
Supper.—Pork shoulder,[a] rhubarb sauce, gingerbread, bread, butter, tea.

THURSDAY, FEBRUARY 26, 1903.

Breakfast.—Boiled mush, hash, evaporated-apple sauce, hot rolls, butter, coffee.
Dinner.—Beef potpie, boiled Lima beans, bread, butter, coffee.
Supper.—Baked beans, mutton chops,[a] bread, butter, tea.
Milk and sugar provided as usual.

The statistics regarding the kinds and total amounts of food in this study are given in detail in Table 35 of the Appendix. The following table summarizes the results of the study with regard to the quantities of nutrients and energy per man per day in the food eaten and rejected:

TABLE 14.—*Nutrients and energy in food eaten and wasted in dietary study No. 374.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	19	18	.....	236	1	1	.....	13
Pork	11	18	1	208	1	1	.....	13
Fish	4	2	1	38	2	.....	.....	8
Butter	.....	18	.....	160	.....	3	.....	27
Total animal food	34	56	2	642	4	5	.....	61
Cereals	37	8	226	1,123	5	1	32	157
Sugars and starches	.....	.....	7	28	.....	.....	.....	.....
Vegetables	10	4	44	252	2	.....	9	44
Fruits	1	.....	34	140	.....	.....	6	24
Total vegetable food	48	12	311	1,543	7	1	47	225
Miscellaneous food	16	16	36	351	1	2	2	29
Total food	98	84	349	2,536	12	8	49	315

It is difficult to decide just what should be the dietary standard for the average man in this department, as the patients were really divided by their degree of activity into two classes—i. e., those who did considerable hard work and those who took little exercise, yet they were fed as one class except that the working patients received an extra allowance of meat once a day, as is the general rule of the institution.

The calculation of the results in the table above, which shows 98 grams of protein and 2,536 calories of energy per man per day in the food consumed, was made on the assumption that all patients were fed alike. In this case the food consumption for the working patients would appear to be too small, while that for the others would seem larger than was necessary. As a matter of fact, however, there was

[a] For working patients.

some difference in the food consumption of the two classes, as may be seen from the results obtained by slightly altering the method of computing the average food consumption and separating the workers from the nonworkers. Instead of adding the amount of the extra ration of meat served to the working patients to the ration served to all alike and dividing the whole quantity by the total number of patients fed, as was done in the computation summarized in the table above, the total food consumed according to the regular menu may be divided by the total number of patients, giving an average of 90 grams of protein and 2,402 calories of energy, which would represent the food consumption of the nonworkers. The total quantity of nutrients and energy in the extra meat consumed should then be divided by the number of workers to whom it was fed, to get the average amount per working patient. This added to the before-mentioned values would give 108 grams of protein and 2,694 calories of energy as the average consumption for the workers. This method of computation, it is believed, gives values that are more nearly correct for the two classes than the average in the table above, since aside from the extra allowance of meat for the workers both classes received about the same quantity of food in their ration, as nearly as could be observed.

During the time of this study the attendants repeatedly sent back to the kitchen for an additional supply of food. This would indicate that the quantities ordinarily supplied to this dining room were not sufficient to meet the demands of the patients. The attendant in charge of the dining room said that the quantity of meat supplied was seldom sufficient to satisfy the patients. The quantity of food eaten by the nonworkers was equal to the standard of 90 grams of protein and 2,450 calories of energy, which is commonly considered sufficient for a man in health with little muscular exercise. The quantity of protein and energy in the food eaten by the working patients was somewhat below that of the common standard for a man at moderately active muscular work, namely 125 grams of protein and 3,400 calories of energy. If the total amount of food served (i. e., food eaten plus food rejected) had been eaten, the protein consumption of the workers would have been nearly equivalent to amount in the standard mentioned, but the energy would still have been a little lower.

The amount of food rejected by the patients during this study contained 11 per cent of the total protein and energy of the food served, noticeably smaller proportions than were observed in some of the preceding studies. The attendant in charge of this dining room stated that the amount rejected was, as a rule, very small. It was suggested to the observer during the time these studies were in progress that the amount rejected was rather less than usual because the patients were given more time to eat than had formerly been the case. While this opinion could not be verified, there may have been a general ten-

dency on the part of the attendants to make the patients hurry through their meals, particularly supper.

Much care was taken in this dining room to return all unserved food, but the amounts returned were small, for the reason that practically all the food provided was served. From the statistics in Table 35 of the Appendix it will be noticed that only a few articles were rejected in large proportions. Boiled salt cod evidently was not relished; neither was wheat breakfast food.

DIETARY STUDY NO. 375—INFIRM MALE PATIENTS.

This study was made with 47 male patients from middle life to old age, more or less infirm, more than 50 per cent of them being parole patients—that is, being at liberty to walk about the grounds unattended. A few did light work in the ward and dining room, but most of them were almost entirely idle. They occupied the ground floor of the Dawes building, called "Dawes basement," and were supplied with food from the general kitchen.

The study began with breakfast, March 4, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 991, equivalent to 1 man for 330 days. The menu during the week of the study was as follows:

WEDNESDAY, MARCH 4, 1903.

Breakfast.—Oatmeal, hot rolls, beef stew, butter, coffee.
Dinner.—Corned beef, crackers, bean soup, bread, steamed potatoes, boiled cabbage.
Supper.—Evaporated-apple sauce, bread, gingerbread, butter, tea.

THURSDAY, MARCH 5, 1903.

Breakfast.—Evaporated-peach sauce, hot rolls, butter, coffee.
Dinner.—Beef stew with dumplings, boiled kidney beans, bread, butter, coffee.
Supper.—Finger rolls, baked beans, butter, tea.

FRIDAY, MARCH 6, 1903.

Breakfast.—Steamed potatoes, boiled salt cod, hot rolls, butter, coffee.
Dinner.—Boiled rice, baked haddock, crackers, bread, steamed potatoes, cottage pudding with sauce, soup.
Supper.—Bread, butter, tea, rhubarb sauce.

SATURDAY, MARCH 7, 1903.

Breakfast.—Fried hominy, corn bread, bread, beefsteak, butter, coffee.
Dinner.—Vegetable soup, bread, boiled beef, steamed potatoes, crackers, fried mush.
Supper.—Ginger cookies, apple jelly, bread, butter, tea.

SUNDAY, MARCH 8, 1903.

Breakfast.—Baked beans, wheat breakfast food, bread, butter, coffee.
Dinner.—Bread, stewed corn, roast beef and dressing, steamed potatoes, apple pie, coffee, butter.
Supper.—Bread, cake, stewed peaches, butter, tea.

MONDAY, MARCH 9, 1903.

Breakfast.—Fried sausage, hot rolls, hominy, butter, coffee.
Dinner.—Crackers, boiled pork shoulders, boiled turnips, boiled rice, bean soup, bread.
Supper.—Rhubarb sauce, cinnamon bread, bread, butter, tea.

TUESDAY, MARCH 10, 1903.

Breakfast.—Liver and bacon, wheat breakfast food, biscuit, butter, coffee.
Dinner.—Beef stew, boiled hominy and beans, bread pudding, bread, butter, coffee.
Supper.—Jelly, rolls, butter, tea.

No separate account was taken of a small amount of special diet served in this dining room during the study. The detailed statistics regarding kinds and amounts of food are given in Table 35 of the Appendix. In the following table are summarized the calculations of the quantities of nutrients and energy per man per day in the food eaten and rejected:

TABLE 15.—*Nutrients and energy in food eaten and wasted in dietary study No. 375.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	10	10	.....	129	6	6	.....	77
Pork	3	7	.....	74	2	3	.....	36
Fish	6	2	.....	42	5	1	.....	28
Butter	1	49	.....	440	.....	6	.....	53
Total animal food	20	68	.....	685	13	16	.....	194
Cereals	26	8	166	839	9	3	56	287
Sugars and starches	.....	.....	7	28	.....	.....	.....	.....
Vegetables	7	2	36	190	4	1	20	105
Fruits	1	.....	17	72	1	.....	17	72
Total vegetable food	34	10	226	1,129	14	4	93	464
Miscellaneous food	10	13	27	264	1	2	4	38
Total food	64	91	253	2,078	28	22	97	696

The food consumption was smaller than would have been expected. The average, 64 grams of protein and 2,078 calories of energy per man per day, is much smaller than the commonly accepted American standard for a man with little or no muscular work, which calls for 90 grams of protein and 2,450 calories of energy. Such a comparison would suggest the question whether these patients ate enough to satisfy their bodily needs. On the other hand, the quantity of food rejected was large, containing 28 grams of protein and 696 calories of energy per man per day, or respectively 30 and 28 per cent of the total in the amount served. Inasmuch as the supply was ample and the proportions rejected were large, the fact that the food consumption of the patients was small indicates either that they ate sufficient amounts or that the food was not suited to their tastes. It seems probable,

however, that even if they did not like certain foods they could have readily satisfied their appetites from those which they liked, as it is almost certain that no person would go hungry on the abundant diet provided. It is, therefore, believed that the patients ate as much as their appetites and bodily wants made necessary.

From a consideration of the statistics in Table 35 of the Appendix regarding the rejection of individual food materials, it would seem that the supply of some of the foods was somewhat excessive, as a considerable number of them were rejected in large proportions. The crackers served to the patients in this ward were seldom eaten. Wheat breakfast foods were not relished, and the proportions rejected were very large. The men seemed to desire meat rather than cereal or vegetable food, yet the amount of some of the meats rejected was also large. All things considered, there was apparently an oversupply of food, though the amount supplied was not much greater than called for by the previously mentioned standard for men in health with little or no muscular work.

It was noticeable that only a part of the surplus food was returned from this ward to the kitchen. At the conclusion of the study the superintendent thoroughly investigated the matter. It was found that in this and some other wards bread and meat were the only articles regularly returned to the kitchen while a considerable amount of good edible food, that might have been utilized again, was not returned because of what appeared to be a misunderstanding. The attendants claimed that they had orders to wash all dishes before returning them; hence, as they could not send back any dirty tins they had to throw away the food. It is probable that considerable amounts, much of which might have been utilized again, were not saved. For instance, it is probably safe to say that from 50 to 100 pounds of boiled rice, which could to great advantage be used in soup, was rejected in this way every time it was served. Evidently there was need of attention to the matter of returning unserved food to the kitchen. A knowledge of ways of utilizing such food was also needed, since but little provision was made for this in the dietetic management of the different departments.

DIETARY STUDY NO. 376—DISTURBED MALE PATIENTS.

This study was made with 30 rather disturbed male patients occupying Gray Ash ward, 23 of whom ate in the dining room and the others in the ward.

The study began with breakfast, Wednesday, March 4, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 632, equivalent to 1 man for 211 days.

The menu was the same as in the study preceding and very little special diet was served in addition. The statistics regarding the

kinds and amounts of food are given in detail in Table 35 of the Appendix.

The following table summarizes the results showing the quantities of nutrients and energy per man per day in the food eaten and rejected:

TABLE 16.—*Nutrients and energy in food eaten and wasted in dietary study No. 376.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	12	12	.....	155	6	6	.....	77
Pork	3	7	.....	74	2	3	.....	35
Fish	2	2	.....	26	3	1	.....	21
Butter	1	46	.....	413	.....	10	.....	89
Total animal food	18	67	.....	668	11	20	.....	222
Cereals	26	8	168	847	11	2	69	338
Sugars and starches	.....	.....	11	44	.....	.....	.....	.....
Vegetables	9	4	39	228	4	1	19	101
Fruits	1	.....	39	160	.....	.....	7	28
Total vegetable food	36	12	257	1,279	15	3	95	467
Miscellaneous food	11	13	37	308	3	3	2	46
Total food	65	92	294	2,255	29	26	97	735

The results, it will be noted, are very similar to those in the preceding study with patients of a similar class as regards activity, the food consumption being small and the amounts rejected relatively large. The quantity of protein in the food consumed was practically the same in both studies, but the quantity of energy was larger in the present case.

The large proportions of food wasted were probably owing in part to the fact that the rejection of food is likely to be larger with patients of this class than with some others in better mental condition. It would hardly seem, however, that the unavoidable waste need be as large as in the present study, in which 31 per cent of the food provided was rejected, as shown in Table 35 of the Appendix. The high percentage in the case of such a large number of different articles suggests that the amounts provided were much larger than needed. Very little food was returned to the kitchen during this study, and it would seem that the amount rejected might have been materially diminished by noting carefully the average consumption and making the supply agree more closely with it.

DIETARY STUDY NO. 377—CHRONIC MALE PATIENTS.

This study was made with 42 chronic male patients, in a dining room of Dawes second ward, which, like the wards included in the two preceding studies, was supplied from the general kitchen. A considerable number of the men in this ward did light work.

The study began with breakfast, Wednesday, March 4, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 872, equivalent to 1 man for 291 days.

The same menu was served as during the two preceding studies. The detailed statistics of kinds and amounts of food are given in Table 35 of the Appendix. The data regarding the quantities of nutrients and energy per man per day in the food eaten and rejected are summarized in the following table:

TABLE 17.—*Nutrients and energy in food eaten and wasted in dietary study No. 377.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	15	15	.....	194	5	5	.....	65
Pork	4	10	.....	105	2	3	.....	36
Fish	3	1	.....	21	2	1	.....	16
Butter	1	58	.....	520	.....	3	.....	26
Total animal food	23	84	.....	840	9	12	.....	143
Cereals	34	10	219	1,101	7	1	46	221
Sugars and starches	.....	.....	8	32	.....	.....	.....	.....
Vegetables	11	4	48	272	3	1	13	73
Fruits	1	.....	30	124	.....	.....	9	36
Total vegetable food	46	14	305	1,529	10	2	68	330
Miscellaneous food	12	14	29	288	3	2	5	49
Total food	81	112	334	2,657	22	16	73	522

It was the opinion of the attendant in charge that these men were light eaters. The results, as summarized above, show that, as compared with some of the other groups, such was actually the case, there being but 81 grams of protein and 2,657 calories of energy per man per day in the food consumed. These amounts were, however, somewhat larger than in either of the two preceding studies. As before, it was believed that the men ate all they needed.

The food rejected contained 21 per cent of the total protein and 16 per cent of the total energy of the food served, or less than in the two preceding studies, but still more than seemed necessary. A large proportion of the waste protein came from meat. It will be seen from the data in Table 35 of the Appendix that the wheat breakfast food, as in other studies, was largely rejected, the proportion in this case, 71 per cent of the amount provided, being even larger than usual. A very large part of the boiled "hominy and beans" was also rejected. Apparently these foods were not relished. It is interesting to note, however, that nearly half of the total protein and more than half of the total carbohydrates consumed was supplied by cereals. The total quantity of protein from vegetable food was twice that from animal food, a proportion which is quite uncommon, as shown by the results

of dietary studies made with families.[a] In consideration of the large proportion of meat rejected it would seem that these patients depended largely upon vegetable foods, and particularly upon cereals, for their nourishment.

DIETARY STUDY NO. 378—AGED CHRONIC MALE PATIENTS.

This study was made with 21 patients in the dining room of Dawes first ward, who were for the most part old men, chronic cases and quiet, some of whom did a little light work, such as taking care of the dining room, cleaning the ward, etc. There were altogether about 50 men in this ward, but as many of them were sick patients and received a special diet, they were not all included in the study.

The study began with breakfast, Tuesday, March 17, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 432, equivalent to 1 man for 144 days.

The menu for the week of the study was as follows:

TUESDAY, MARCH 17, 1903.

Breakfast.—Fried liver and bacon, wheat breakfast food, hot rolls, butter, coffee.

Dinner.—Corned beef, steamed potatoes, macaroni, fresh apples, bread, butter, coffee.

Supper.—Rhubarb sauce, soda biscuits, bread, butter, tea.

WEDNESDAY, MARCH 18, 1903.

Breakfast.—Oatmeal, beef stew, hot rolls, butter, coffee.

Dinner.—Bean soup, fresh fried herring, boiled rice, steamed potatoes, crackers, bread.

Supper.—Apple sauce, gingerbread, bread, butter, tea.

THURSDAY, MARCH 19, 1903.

Breakfast.—Evaporated peach sauce, boiled mush, hot rolls, butter, coffee.

Dinner.—Beef potpie, boiled onions, bread, butter, coffee.

Supper.—Baked beans, finger rolls, butter, tea.

FRIDAY, MARCH 20, 1903.

Breakfast.—Salt mackerel, steamed potatoes, biscuit, butter, coffee.

Dinner.—Bean soup, fried fresh herring, boiled rice, cucumber pickles, bread pudding, crackers, bread.

Supper.—Fresh apples, bread, butter, tea, fish.

SATURDAY, MARCH 21, 1903.

Breakfast.—Beef steak, fried hominy, bread, butter, coffee.

Dinner.—Vegetable soup, steamed potatoes, boiled turnips, boiled beef, crackers, bread.

Supper.—Apple jelly, ginger cakes, bread, butter, tea.

SUNDAY, MARCH 22, 1903.

Breakfast.—Baked beans, wheat breakfast food, biscuit, butter, coffee.

Dinner.—Roast beef with gravy and dressing, steamed potatoes, stewed tomatoes, fresh apples, bread, butter, coffee.

Supper.—Evaporated peach sauce, plain cake, bread, butter, tea.

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[a] Connecticut Storrs Station Rpt. 1899, p. 80.

MONDAY, MARCH 23, 1903.

Breakfast.—Fried sausage, fried hominy, biscuit, butter, coffee.

Dinner.—Bean soup, boiled pork shoulder, steamed potatoes, boiled rice, soda crackers, bread.

Supper.—Prune sauce, cinnamon bread, butter, bread, tea.

Sugar and milk as usual. Bread served ad libitum.

The statistics regarding the kinds and amounts of food are given in detail in Table 35 of the Appendix. Table 18 summarizes the computations of the quantities of nutrients and energy per man per day in the food eaten and rejected.

TABLE 18.—*Nutrients and energy in food eaten and wasted in dietary study No. 378.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	10	9	.....	120	3	3	.....	39
Pork	4	10	.....	105	1	2	.....	22
Fish	13	13	2	176	2	2	.....	26
Butter	.....	24	.....	213	.....	8	.....	71
Total animal food	27	56	2	614	6	15	.....	158
Cereals	36	10	227	1,141	6	1	38	185
Sugars and starches	.....	.....	33	132	.....	.....	.....	.....
Vegetables	10	4	52	284	5	2	21	122
Fruits	1	1	49	209	1	.....	16	68
Total vegetable food	47	15	361	1,766	12	3	75	375
Miscellaneous food	10	11	14	194	1	1	.....	12
Total food	84	82	377	2,574	19	19	75	545

The average food consumption, 84 grams of protein and 2,674 calories of energy per man per day, was practically the same as that in the study preceding. In consideration of the physical condition and occupation of these patients it was believed that they ate fully enough to meet their bodily needs, especially since more was served to them than they consumed and no complaints were heard concerning their food.

The amount of food rejected was sufficient to supply 19 grams of protein and 555 calories of energy per man per day, or 18 per cent of the protein and 17 per cent of the energy in the total food served. During this study it is believed that the attendants were more careful than usual to return unserved food to the kitchen, and the quantity thus returned was considerable. It has already been explained, however, that there was in general little provision for the utilization of many of the foods thus returned.

DIETARY STUDY NO. 379—DISTURBED MALE PATIENTS.

This study, which is very similar in detail to the preceding, was made with male patients of a disturbed class, but in fair physical health, occupying White Ash ward. Some of them ate in the dining room and some in the ward. At the beginning of the study there were 40 men in the group, but during the latter part of it 10 were transferred to another ward. Only 4 of these patients did any work, the amount in every case being very small.

The study began with breakfast, March 17, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 802, equivalent to 1 man for 267 days.

The menu served was the same as in the previous study. The detailed statistics of the kinds and amounts of food are given in Table 35 of the Appendix. The quantities of nutrients and energy per man per day in the food eaten and rejected are shown in Table 19 below. Some difficulty was experienced in separating the different kinds of foods in the material rejected, but the data obtained are believed to be reliable.

TABLE 19.—*Nutrients and energy in food eaten and wasted in dietary study No. 379.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	16	16	.....	206	1	1	.....	13
Pork	4	9	.....	96	2	3	.....	35
Fish	20	21	4	283	2	2	.....	25
Butter	.....	35	.....	312	.....	.....	.....	.....
Total animal food	40	81	4	897	5	6	.....	73
Cereals	41	10	256	1,277	4	1	24	121
Sugars and starches	.....	.....	6	24	.....	.....	.....	.....
Vegetables	12	5	52	301	3	.....	10	52
Fruits	1	1	45	192	.....	.....	4	16
Total vegetable food	54	16	359	1,794	7	1	38	189
Miscellaneous food	10	11	12	186	1	1	.....	13
Total food	104	108	375	2,877	13	8	38	275

The average quantity of protein, 104 grams, and of energy, 2,877 calories, per man per day in the food consumed by this group is larger than that of the previously mentioned standard for a man in health with little or no muscular work, but perhaps no larger than was to be expected when it is remembered that the men were generally more or less nervous and disturbed. It is noticeably higher than the average observed in some of the studies immediately preceding, which may perhaps be accounted for by the differences in physical condition and muscular exertion, which for some of the patients in the present study was perhaps considerable during their violent periods.

The total amount of food rejected during this study was only 12 per cent of that provided, and contained only 11 per cent of the total protein and 9 per cent of the total energy of the food served, proportions much smaller than in some of the preceding studies. In general the amounts of food provided seemed to be but little larger than were needed, though in a few cases there was considerable left after the patients were served, the excess being returned to the kitchen.

DIETARY STUDY NO. 380—QUIET CHRONIC MALE PATIENTS.

This study was made with 38 male patients who ate in the dining room of Dawes third ward. Seventeen of them were classed as workers, 9 working in the hospital laundry, 1 doing carpenter work, and 7 others being occupied for part of the time in light ward and dining-room work. They were mostly chronic patients, and were quiet and orderly.

The study began with breakfast, March 17, 1903, and continued 21 days, simultaneously with Nos. 378 and 379. The total number of meals eaten was 819, equivalent to 1 man for 273 days.

The same menu was served during this study as in the two preceding. Statistics regarding the kinds and amounts of food are given in detail in Table 35 of the Appendix. The quantities of nutrients and energy per man per day in the food eaten and rejected are given in the following table:

TABLE 20.—*Nutrients and energy in food eaten and wasted in dietary study No. 380.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	14	14	.....	181	2	2	.....	26
Pork	4	10	.....	105	.....	.....	.....	.....
Fish	15	15	3	206	3	3	1	42
Butter	.....	33	.....	293	.....	1	.....	9
Total animal food	33	72	3	785	5	6	1	77
Cereals	39	10	239	1,201	2	.....	13	60
Sugars and starches	.....	.....	10	40	.....	.....	.....	.....
Vegetables	10	4	42	244	3	1	14	77
Fruits	1	1	43	184	.....	.....	8	32
Total vegetable food	50	15	334	1,669	5	1	35	169
Miscellaneous food	9	10	12	173	1	1	.....	13
Total	92	97	349	2,627	11	8	36	259

The average food consumed was sufficient to supply 92 grams of protein and 2,627 calories of energy per man per day, amounts which appeared to be abundant for the needs of the patients. The results obtained are comparable with those of studies Nos. 364, 372, and 378, and show about the same food consumption, which would appear to be about the normal amount at this institution for patients of this class.

The total amount of food rejected was only 10 per cent of that provided, which is even less than was observed in the study preceding, though it contained the same proportion of protein and energy, namely, 11 and 9 per cent, respectively, of the total in food served.

The excess of total food provided over what was needed to serve the patients was considerably larger in this study than in the preceding. It was noted that the attendant in charge of this dining room took special pains to return to the kitchen all food not served, and in all respects the dining room appeared to be particularly well managed.

DIETARY STUDY NO. 381—MALE PATIENTS, YOUNG AND ORDERLY.

This study was made with 30 patients in "Beech" ward, mostly young men who were quiet and orderly, and many of whom would probably recover. Of this number 15 were parole patients, most of them at work in the laundry, tailor shop, mattress shop, etc.

The study began with breakfast, March 30, 1903, and continued for 7 days, with 21 meals. The total number of meals taken was 615, equivalent to 1 man for 205 days.

The following menu was served during the week of this study:

MONDAY, MARCH 30, 1903.

Breakfast.—Fried sausage, hominy, hot rolls, butter, coffee.
Dinner.—Bean soup, boiled shoulders, boiled kale, boiled rice, crackers, bread.
Supper.—Apple sauce, hash, doughnuts, bread, butter, tea.

TUESDAY, MARCH 31, 1903.

Breakfast.—Oatmeal, liver and bacon, bread, butter, coffee.
Dinner.—Corned beef, steamed potatoes, boiled Lima beans, bread pudding, bread, butter, coffee.
Supper.—Fried liver and bacon, stewed prunes, soda biscuit, butter, tea.

WEDNESDAY, APRIL 1, 1903.

Breakfast.—Oatmeal, beef stew, hot rolls, butter, coffee.
Dinner.—Bean soup, fresh herring, stewed canned corn, steamed potatoes, crackers, bread.
Supper.—Beef stew, apple sauce, gingerbread, bread, butter, tea.

THURSDAY, APRIL 2, 1903.

Breakfast.—Baked hash, corn-meal mush, evaporated-peach sauce, gingerbread, biscuit, butter, coffee.
Dinner.—Beef potpie, boiled beans, bread, butter, coffee.
Supper.—Baked beans, beef potpie, finger rolls, butter, tea.

FRIDAY, APRIL 3, 1903.

Breakfast.—Salt mackerel, steamed potatoes, biscuit, butter, coffee.
Dinner.—Bean soup, baked fresh shad, boiled macaroni, cottage pudding with sauce, boiled rice, crackers, bread.
Supper.—Beef stew, prune sauce, bread, butter, tea.

SATURDAY, APRIL 4, 1903.

Breakfast.—Beefsteak, hominy, bread, butter, coffee.

Dinner.—Vegetable soup, boiled beef, steamed potatoes, boiled kale, bread, crackers.

Supper.—Apple jelly, beef stew, Graham bread, ginger cakes, butter, tea.

SUNDAY, APRIL 5, 1903.

Breakfast.—Wheat breakfast food, fried ham, baked beans, biscuit, butter, coffee.

Dinner.—Roast beef, steamed potatoes, boiled rice, apple pie, bread, butter, coffee.

Supper.—Apple sauce, cake, bread, butter, tea.

Bread served ad libitum. Sugar was supplied at each meal. Two quarts of milk was served to the ward morning and night.

The data regarding the total amounts of food provided, returned, eaten, and rejected are given in Table 35 of the Appendix. The amounts of nutrients and energy per man per day in the food eaten and rejected are shown in Table 21.

TABLE 21.—*Nutrients and energy in food eaten and wasted in dietary study No. 381.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	17	17	.....	219	2	2	.....	26
Pork	7	13	.....	144	1	2	.....	22
Fish	11	12	2	159	2	2	.....	25
Butter	.....	32	.....	285	.....	.....	.....	.....
Milk	4	5	7	88	.....	.....	.....	.....
Total animal food	39	79	9	895	5	6	.....	73
Cereals	34	12	211	1,087	2	1	15	77
Sugars and starches	.....	.....	17	68	.....	.....	.....	.....
Vegetables	13	6	52	313	1	.....	2	12
Fruits	.....	.....	26	104	.....	.....	4	16
Total vegetable food	47	18	306	1,572	3	1	21	105
Miscellaneous food	24	35	32	536	4	5	3	73
Total food	110	132	347	3,003	12	12	24	251

The average food consumption shown by the results in the above table, 110 grams protein and 3,003 calories energy, are very nearly the amounts called for by the commonly accepted American dietary standard for a man in health at light to moderate muscular work. The indications are, therefore, that these patients were amply nourished.

The quantity of food left on the plates by these patients was ordinarily very small, the total amount of food rejected being but 7 per cent of that provided, or 10 per cent of the total protein and 8 per cent of the total energy of the food served. In the case of many foods, however, the proportions returned to the kitchen, after the patients had been served, were large, as the quantity sent to the dining room was much in excess of what was needed by the patients. The data given in

Table 35 of the Appendix show that 35 per cent of the boiled beef, 36 per cent of the hominy, 45 per cent of the rice, and similarly large proportions of a number of other materials were returned.

DIETARY STUDY NO. 382—MALE PATIENTS, YOUNG, QUIET, AND ORDERLY.

Sycamore ward, in which this study was made, accommodates about 30 patients; during the study the number varied from 26 to 33. They were chiefly young men, many of them parole patients, quiet and orderly, some of whom would doubtless be cured. Seven of them were workers.

The study was carried on simultaneously with No. 381 and the menu served was the same. The total number of meals taken was 617, equivalent to 1 man for 206 days.

The statistics of kinds and amounts of food are given in detail in Table 35 of the Appendix. The following table shows the quantities of nutrients and energy per man per day in the food eaten and rejected:

TABLE 22.—*Nutrients and energy in food eaten and wasted in dietary study No. 382.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Energy.	Protein.	Fat.	Carbohydrates.	Energy.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	11	11	.....	142	2	2	.....	26
Pork	5	10	.....	109	1	2	.....	22
Fish	9	10	1	129	2	2	.....	26
Butter	.....	32	.....	284	.....	.....	.....	.....
Milk	4	5	7	89	.....	.....	.....	.....
Total animal food	29	68	8	753	5	6	.....	74
Cereals	33	11	208	1,062	2	.....	14	64
Sugars and starches	.....	.....	22	88	.....	.....	.....	.....
Vegetables	12	5	50	292	.....	.....	.....	.....
Fruits	1	.....	28	116	.....	.....	4	16
Total vegetable food	46	16	308	1,558	2	.....	18	80
Miscellaneous food	23	34	32	523	5	8	3	103
Total food	98	118	348	2,834	12	14	21	257

The food consumption, averaging 98 grams protein and 2,834 calories of energy per man per day, was somewhat smaller than that observed for similar patients in the preceding study, the difference being doubtless partly due to the smaller proportion of working patients in the present group. The food appeared to be entirely satisfactory, the quantities left on the plates were small, and the indications were that the patients ate all they needed. If such had not been the case the amounts sent to the dining room were large enough to have provided much more than they ate. In this study, as in the preceding, much care was taken to return all unserved food to the kitchen.

DIETARY STUDY NO. 383—CHRONIC MALE PATIENTS AND IDIOTS.

This study was made with 24 patients, all males, but of varying ages, some being children and some old men. A few were fairly quiet and orderly chronic patients while others were idiots or at least had very little mental capacity. There were very few disturbed patients. Five of the men were classed as workers, but several others performed some light work, usually about the ward.

This study was made at the same time as the two preceding and the menu was the same. The total number of meals taken was 501, equivalent to 1 man for 167 days.

The statistics of kinds and amounts of food are given in detail in Table 35 of the Appendix. The quantities of nutrients and energy per man per day in the food eaten and rejected are summarized in the following table:

TABLE 23.—*Nutrients and energy in food eaten and wasted in dietary study No. 383.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	11	11	.....	142	3	3	.....	39
Pork	5	11	.....	118	.....	1	.....	8
Fish	12	13	2	172	1	1	.....	13
Butter	.....	28	.....	249	.....	11	.....	98
Milk	5	7	8	114	.....	.....	.....	.....
Total animal food	33	70	10	795	4	16	.....	158
Cereals	38	13	239	1,224	4	1	26	129
Sugars and starches	.....	.....	20	80	.....	.....	.....	.....
Vegetables	13	5	48	288	1	.....	4	20
Fruits	1	.....	40	164	.....	.....	1	4
Total vegetable food	52	18	347	1,756	5	1	31	153
Miscellaneous food	10	13	26	260	1	1	2	21
Total food	95	101	383	2,811	10	18	33	332

The average food consumption, 95 grams of protein and 2,811 calories of energy per man per day, in this study was practically equal to the previously mentioned dietary standard for a man in health with sedentary occupation. Apparently the patients were abundantly nourished, though it may be that they ate no more than they needed. The quantity of food which they rejected contained 10 per cent of the protein and 11 per cent of the energy of the total food served. Large proportions of many of the staple foods were returned to the kitchen during this study, indicating that the amounts sent to the dining room were considerably in excess of what was required.

DIETARY STUDY NO. 384—MALE PATIENTS, NOT VIOLENT.

This study was made with about 30 male patients, from middle-aged to old men, occupying a ward known as "Garfield basement." They were more or less untidy; most of them decidedly demented, but not violent. Several of them did ward and dining-room work, but as a whole their physical activity appeared to be very slight. The men studied were all supplied with the regular diet, none being sick, though a number of them appeared to be quite feeble.

The study began with breakfast, April 16, 1903, and continued for 7 days, with 21 meals. The total number of meals taken was 632, equivalent to 1 man for 211 days.

The menu served during the week of this study was as follows:

THURSDAY, APRIL 16, 1903.

Breakfast.—Oatmeal, apple jelly, bread, butter, coffee.
Dinner.—Beef potpie, kidney beans, boiled rice, bread, butter, coffee.
Supper.—Baked beans, finger rolls, butter, tea.

FRIDAY, APRIL 17, 1903.

Breakfast.—Salt mackerel, steamed potatoes, hot rolls, butter, coffee.
Dinner.—Bean soup, fried fresh herring, macaroni and tomato, steamed potatoes, evaporated-peach pie, crackers, bread.
Supper.—Prune sauce, bread, butter, tea.

SATURDAY, APRIL 18, 1903.

Breakfast.—Hominy, beefsteak, bread, butter, coffee.
Dinner.—Vegetable soup, boiled beef, boiled kale, steamed potatoes, crackers, bread.
Supper.—Apple jelly, ginger cakes, Graham bread, butter, tea.

SUNDAY, APRIL 19, 1903.

Breakfast.—Wheat breakfast food, baked beans, biscuit, butter, coffee.
Dinner.—Roast beef with gravy and dressing, steamed potatoes, stewed tomatoes, evaporated-apple pie, bread, butter, coffee.
Supper.—Evaporated-apple sauce, cake, bread, butter, tea.

MONDAY, APRIL 20, 1903.

Breakfast.—Boiled hominy, fried sausage, bread, butter, coffee.
Dinner.—Bean soup, boiled shoulder, steamed potatoes, boiled rice, crackers, bread.
Supper.—Rhubarb sauce, cinnamon bread, bread, butter, tea.

TUESDAY, APRIL 21, 1903.

Breakfast.—Wheat breakfast food, peach sauce, biscuit, butter, coffee.
Dinner.—Fresh herring, kidney beans, cucumber pickles, bread pudding, bread, butter, coffee.
Supper.—Prune sauce, biscuit, butter, tea.

WEDNESDAY, APRIL 22, 1903.

Breakfast.—Oatmeal, beef stew, rolls, butter, coffee.
Dinner.—Bean soup, corned beef, steamed potatoes, boiled cabbage, crackers, bread.
Supper.—Peach sauce, gingerbread, bread, butter, tea.

Bread served ad libitum with every meal.

The detailed data for the total amounts of food returned, eaten, and rejected during this study are shown in Table 35 of the Appendix. The calculated amounts of nutrients and energy per man per day in the food eaten and rejected are shown in Table 24.

TABLE 24.—*Nutrients and energy in food eaten and wasted in dietary study No. 384.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	10	10	.....	129	2	2	.....	26
Pork	5	10	.....	109	.....	.....	.....	.....
Fish	6	7	1	90	2	3	.....	35
Butter	.....	31	.....	276	.....	.....	.....	.....
Total animal food	21	58	1	604	4	5	.....	61
Cereals	38	10	234	1,177	7	2	41	210
Sugars and starches	.....	.....	11	44	.....	.....	.....	.....
Vegetables	13	3	51	283	1	.....	5	24
Fruits	1	.....	35	144	.....	.....	6	24
Total vegetable food	52	13	331	1,648	8	2	52	258
Miscellaneous food	6	12	32	259	1	1	4	28
Total food	79	83	364	2,511	13	8	56	347

In respect to the food consumption, 79 grams of protein and 2,511 calories of energy per man per day, the results of this study are very similar to Nos. 377 and 378, on preceding pages, which were made with patients of about the same general age, activity, and degree of physical health. As was explained in the discussion of the preceding studies, the indications were that the patients ate enough to meet their bodily needs.

The amount of food rejected was larger in proportion to the total amount served than was the case in some of the studies immediately preceding this, but was much smaller than in several of the other studies included in the present report. As shown by the data in Table 35 of the Appendix, the waste was not confined to any given articles but varied considerably in kind and amount from day to day. The proportion of rejected food (10 per cent) is more marked if considered in terms of nutrients and energy rather than in terms of total food.

DIETARY STUDY NO. 385—MALE PATIENTS, QUIET, CHRONIC.

This study was made with about 30 quiet, chronic, male patients, more or less untidy in their habits, who occupied the ward known as "Garfield first." It was made simultaneously with No. 384, and the menu was the same as in that study. The total number of meals taken was 633, equivalent to 1 man for 211 days.

Table 35 of the Appendix shows the total amounts of food provided, eaten, and rejected, and the following table summarizes the computed amounts of nutrients and energy per man per day in the food eaten and rejected:

TABLE 25.—*Nutrients and energy in food eaten and wasted in dietary study No. 385.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	19	19	.....	245	1	1	.....	13
Pork	6	11	.....	122	.....	.....	.....	.....
Fish	14	15	2	198	.....	.....	.....	.....
Butter	.....	31	.....	275	.....	.....	.....	.....
Total animal food	39	76	2	840	1	1	.....	13
Cereals	40	10	246	1,233	2	.....	14	61
Sugars and starches	.....	.....	11	44	.....	.....	.....	.....
Vegetables	17	5	66	377	1	.....	4	20
Fruits	1	.....	54	220	.....	.....	7	28
Total vegetable food	58	15	377	1,874	3	.....	25	112
Miscellaneous food	8	11	30	250	1	1	2	21
Total food	105	102	409	2,964	5	2	27	146

The food consumption, 105 grams of protein and 2,964 calories of energy per man per day, was believed to be entirely adequate to the physiological demands of the patients. There was ample opportunity for the men to eat more had they so desired, because the amounts provided were abundant, as was shown by the fact that considerable food was returned to the kitchen after the men were served.

The proportions of food rejected by these patients was the minimum for the studies here reported, being but 5 per cent of the total food provided, and containing only 5 per cent of the total protein and of the energy in the food served.

DIETARY STUDY NO. 386—MALE PATIENTS, QUIET, CHRONIC.

This study was made with about 30 male patients occupying Garfield second ward, of about the same class and under practically the same conditions as those in the two preceding studies (Nos. 384 and 385). The menu served was the same. The total number of meals served was 616, equivalent to 1 man for 205 days.

Table 35 of the Appendix contains the data regarding food provided, returned, eaten, and rejected during the study. Table 26 shows the calculated amounts of nutrients and energy per man per day contained in the food eaten and rejected.

TABLE 26.—*Nutrients and energy in food eaten and wasted in dietary study No. 386.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	18	18	.....	232	1	1	.....	13
Pork	5	11	.....	118	.....	.....	.....	.....
Fish	10	11	2	146	1	1	.....	13
Butter	.....	32	.....	285	.....	.....	.....	.....
Total animal food	33	72	2	781	2	2	.....	26
Cereals	35	9	216	1,084	6	1	37	181
Sugars and starches	.....	.....	11	44	.....	.....	.....	.....
Vegetables	18	5	72	405	.....	.....	2	8
Fruits	1	.....	53	216	.....	.....	9	36
Total vegetable food	54	14	352	1,749	6	1	48	225
Miscellaneous food	10	13	32	283	1	1	1	17
Total food	97	99	386	2,813	9	4	49	268

The food consumption in this study, 97 grams of protein and 2,813 calories of energy per man per day, is slightly smaller than in the preceding study, but the average in both was considerably larger than that in study No. 384 and others in which the patients had about the same amount of muscular exercise.

The quantity of food rejected was also very small, but was slightly larger than in the preceding study, the difference being comparable with that observed in the food consumption. In other words, the quantity served per man per day was very nearly the same in both studies.

The amounts of food sent from the kitchen to the dining room were much nearer the quantities which were served than was the case in the preceding study, so that the proportions returned to the kitchen were smaller. Taken in connection with the small percentage of food rejected, this would seem to indicate that, whether intentionally or accidentally, the amounts of food provided for the ward were gauged more nearly to the desires of the patients than is usual where special attention has not been given to this matter.

DIETARY STUDY NO. 387—MALE PAROLE PATIENTS.

This study was made in Poplar ward, with about 14 parole patients, most of whom had not been committed to the institution, but came of their own will, some being under treatment for dipsomania and others recovering from the effects of fever, sunstroke, etc. They were quiet and orderly, and gave little sign of mental derangement. Very few of them did any regular work, but all spent a large part of their time out of doors, and must have had considerable muscular exercise.

The study began with breakfast, Saturday, May 2, 1903, and continued 7 days, with 21 meals. The total number of meals taken was 275, equivalent to 1 man for 92 days.

The menu served during the week of the study was as follows:

SATURDAY, MAY 2, 1903.

Breakfast.—Oatmeal, beefsteak, griddle cakes, fried potatoes, biscuit, milk, butter.
Dinner.—Vegetable soup, roast veal, browned potatoes, stewed canned peas, ice cream, bread, crackers, milk.
Supper.—Fried bacon, stewed prunes, baked potatoes, bread, milk.

SUNDAY, MAY 3, 1903.

Breakfast.—Wheat breakfast food, fried ham, steamed and fried potatoes, corn bread, baked beans, rolls, milk.
Dinner.—Tomato soup, baked chicken, mashed potatoes, boiled rice, lemon jelly, milk, bread.
Supper.—Shoulder, lettuce, French fried potatoes, apple sauce, cocoanut cake, bread, milk.

MONDAY, MAY 4, 1903.

Breakfast.—Oatmeal, veal cutlets, baked potatoes, muffins, bread, milk.
Dinner.—Bean soup, roast beef, browned potatoes, boiled macaroni, green onions, floating island pudding, bread, crackers, milk.
Supper.—Hamburg steak, lettuce, biscuit, bread, milk.

TUESDAY, MAY 5, 1903.

Breakfast.—Oatmeal, fried mush, beef steak, fried onions, baked potatoes, bread, milk.
Dinner.—Vegetable soup, baked shoulder, boiled cabbage, boiled potatoes, rice pudding, bread, crackers, milk.
Supper.—Ham omelet, Saratoga chips, lettuce, evaporated peach sauce, bread, milk.

WEDNESDAY, MAY 6, 1903.

Breakfast.—Oatmeal, fried ham, potato cakes, muffins, biscuit, milk.
Dinner.—Vegetable soup, beef stew, boiled Lima beans, mashed potatoes, lemon pie, bread, milk.
Supper.—Fried bacon, baked potatoes, rhubard sauce, toast, bread, milk.

THURSDAY, MAY 7, 1903.

Breakfast.—Oatmeal, fried sausage, fried potatoes, corn bread, bread, oatmeal.
Dinner.—Vegetable soup, beefsteak, mashed potatoes, creamed onions, ice cream, crackers, bread, milk.
Supper.—Cold roast beef, lettuce, apple sauce, baked beans, finger rolls, bread, milk.

FRIDAY, MAY 8, 1903.

Breakfast.—Oatmeal, French fried potatoes, baked hash, fried fresh herring, biscuit, milk.
Dinner.—Clam soup, broiled shad, mashed potatoes, roast beef, slaw, boiled rice, evaporated-peach pie, crackers, bread, milk.
Supper.—Fried eggs, baked potatoes, stewed prunes, biscuit, bread, milk.
Tea or coffee served as desired. Bread served ad libitum with every meal. Butter as usual.

Table 35 of the Appendix gives the data regarding the total amounts of food provided, returned, eaten, and rejected. The following table shows the calculated amounts of nutrients and energy per man per day in the food eaten and rejected during this study:

TABLE 27.—*Nutrients and energy in food eaten and wasted in dietary study No. 387.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	34	28	.....	385	4	3	.....	43
Pork	14	27	.....	296	3	7	.....	74
Fish	3	3	1	43	.....	.....	.....	.....
Butter	.....	15	.....	134	.....	.....	.....	.....
Milk	13	17	21	287	.....	.....	.....	.....
Eggs	2	3	.....	35	.....	.....	.....	.....
Total animal food	66	93	22	1,180	7	10	.....	117
Cereals	25	9	153	792	8	3	43	231
Sugars and starches	.....	.....	84	336	.....	.....	.....	.....
Vegetables	12	13	70	444	4	5	33	192
Fruits	.....	.....	21	84	.....	.....	7	28
Total vegetable food	37	22	328	1,656	12	8	83	451
Miscellaneous food	25	29	66	622	4	5	7	89
Total food	128	144	416	3,458	23	23	90	657

The amount of food consumed supplied 128 grams of protein and 3,458 calories of energy per man per day, amounts corresponding to the previously mentioned dietary standard for a man at moderately active muscular work, such for instance as a carpenter or mason or laborer working actively 10 hours per day. While these men were out of doors much of the time and had considerable muscular exercise it is very doubtful if their activity was equal to that called for by the standard quoted. However, they were in general convalescing, or in a condition which may be compared to it, and it is not unlikely that in such condition the demands of the body for nourishment may be influenced by other than the ordinary factors.

DIETARY STUDY NO. 388—MALE PAROLE PATIENTS.

This study was made with 9 male patients occupying Maple ward, and of a class similar to those included in dietary No. 387. Only 2 of these patients performed any regular work, but all of them took some exercise each day.

The study was made at the same time as No. 387, and the menu served was the same. The total number of meals taken was 188, equivalent to 1 man for 63 days.

The data for the total amounts of food provided, returned, eaten, and rejected are given in Table 35 of the Appendix. The following

table shows the average amounts of nutrients and energy per man per day in the food eaten and rejected during this study:

TABLE 28.—*Nutrients and energy in food eaten and wasted in dietary study No. 388.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	26	24	.....	318	5	3	.....	47
Pork	15	28	.....	309	2	6	.....	61
Fish	4	4	1	55	.....	.....	.....	.....
Milk	23	28	35	481	.....	.....	.....	.....
Butter	.....	31	.....	276	.....	.....	.....	.....
Eggs	2	2	.....	26	.....	.....	.....	.....
Total animal food	70	117	36	1,465	7	9	.....	108
Cereals	18	8	113	595	8	4	42	236
Sugars and starches	.....	.....	72	288	.....	.....	.....	.....
Vegetables	10	9	64	376	6	9	35	244
Fruits	.....	.....	15	60	.....	.....	15	60
Total vegetable food	28	17	264	1,319	14	13	92	540
Miscellaneous food	22	22	59	520	10	13	15	216
Total food	120	156	359	3,304	31	35	107	864

The average quantity of food eaten by these patients, 120 grams of protein and 3,304 calories of energy per man per day, was but a trifle less than in the preceding study, while the amount of food rejected (a total of 18 per cent) was a little higher, the average amount of nutrients and energy in the total food served being about equal in both studies.

The food consumption in these two studies was noticeably larger than that observed in any of the preceding. These men had no more muscular activity than some of the others, and they were not considered to be more hearty eaters. The increase in the quantity of nutrients consumed was probably due to a wider variety in the diet.

DIETARY STUDY NO. 389—OFFICERS AND EMPLOYEES.

This study was made in "Walnut ward" dining room, which supplied food for about 20 employees and officers, including three supervisors (males), three men clerks, several women clerks, and maids employed about the halls. A considerable number lived outside the institution and took only a part of their meals in the dining room.

This study was carried on at the same time as Nos. 387 and 388, and the same menu was served. The total number of meals taken, estimating 1 meal per woman as 0.8 meal per man, was 236, equivalent to 1 man for 79 days.

Table 35 of the Appendix contains the detailed data for the total amounts of food provided, eaten, and rejected. The total amounts of

nutrients and energy per man per day in the food eaten and rejected are shown in the following table:

TABLE 29.—*Nutrients and energy in food eaten and wasted in dietary study No. 389.*

[Quantities per man per day.]

Kind of food material.	Food eaten.				Food wasted.			
	Protein.	Fat.	Carbohydrates.	Fuel value.	Protein.	Fat.	Carbohydrates.	Fuel value.
	Grams.	*Grams.*	*Grams.*	*Calories.*	*Grams.*	*Grams.*	*Grams.*	*Calories.*
Beef, veal, and mutton	30	27	1	364	4	3	.....	43
Pork	14	23	.....	261	4	8	.....	87
Fish	4	5	1	65	.....	.....	.....	.....
Milk	31	38	47	650	.....	.....	.....	.....
Butter	.....	7	.....	62	.....	.....	.....	.....
Eggs	2	3	.....	35	.....	.....	.....	.....
Total animal food	81	103	49	1,437	8	11	.....	130
Cereals	24	9	145	756	7	3	38	207
Sugars and starches	.....	.....	86	344	.....	.....	.....	.....
Vegetables	9	9	63	368	6	7	33	218
Fruits	.....	.....	11	44	.....	.....	21	84
Total vegetable food	33	18	305	1,512	13	10	92	509
Miscellaneous food	26	30	68	643	6	7	15	146
Total food	140	151	422	3,592	27	28	107	785

The result of this study may quite properly be compared with those of studies with attendants reported in this publication; that is, Nos. 365, 369, and 370. As regards food eaten the present study, averaging 140 grams of protein and 3,522 calories of energy per man per day, shows the maximum as regards protein, being 9 grams higher than No. 370 and 40 grams higher than No. 369. In respect to amount of fat eaten it was moderate, and was next to the lowest in respect to carbohydrates. The energy was lower than in the case of No. 370, which, however, was extremely high, owing to the large amount of butter and sugar eaten.

A comparison of the food consumption of the persons here studied with any dietary standard is almost impossible, because the group included employees of both sexes and of varying degrees of muscular activity. Moreover, some worked only from 8 a. m. to 5 p. m., while others were on duty continuously from 8 a. m. to 9 p. m. It hardly seems probable, however, that the demands of these persons for nutrients and energy would be on the average any larger than are called for by the previously mentioned dietary standard for a man at light to moderate muscular work, namely, 112 grams of protein and 3,050 calories of energy per day. It is interesting to note that the results of the study are considerably higher than the standard in respect to both protein and energy. It is reasonably certain, therefore, that these persons had amply sufficient or more than sufficient nourishment.

The amount of food rejected in this study was sufficient to supply

27 grams of protein and 785 calories of energy per man per day, or 16 per cent of the protein and 18 per cent of the energy in the total food served. In this respect the results are similar to those of the two preceding studies with subjects receiving the same diet.

FOOD ISSUED FROM THE STOREROOM.

In connection with these studies of dietaries in different departments of the hospital, it seemed desirable to obtain data regarding the kinds and amounts of food issued from the storeroom to the kitchens of the whole institution. It was not possible to obtain these for the fiscal year during which the dietary studies here reported were conducted, partly for the reason that the last of the studies was completed some time before the end of the year. However, the statistics for the year immediately preceding the time of the studies, namely, from July 1, 1901, to June 30, 1902, were obtained, and it was believed that the nutritive value of the food supplied per capita did not differ materially during the two years.

These statistics are given in detail in Table 36 of the Appendix. It will be observed that they show the amounts issued to the different departments for use in preparing the food, while the data of the studies show the quantities of food served to the patients and eaten and rejected by them. The way in which the statistics here given were obtained may require a brief explanation.

Supplies received at the hospital are placed at once in a general storeroom or "store" as it is designated, and are issued to the different departments upon the receipt of orders signed by an officer of the department in which they are to be used. The order sheets showing the kind and amount of material sent out are filed with a bookkeeper, who enters the items upon a ledger. From these ledgers the statistics were taken concerning the kinds and amounts of food issued during the course of the year.

These figures show the kinds and total amounts of different food materials thus taken from the storeroom and supplied to the several hospital kitchens. The composition of each kind of material was assumed to be the same as the average for several analyses of similar materials as previously published.[a] From these data the total quantities of the different nutrients in the food supplied were calculated.

In order to compute the quantities per man per day it was necessary to know the total number of persons of each sex fed during the year, and the number of meals taken by each. To ascertain this exactly was impossible, because of variation in the population from day to day, owing to deaths, patients discharged, new patients received, and

[a] U. S. Dept. Agr., Office of Experiment Stations Bul. 28, revised.

patients or attendants on leave of absence. However, from data showing the average population of the hospital an estimate of attendance was made, allowing for absences, etc., which was believed to be tolerably accurate. According to this estimate, the total attendance of men for the year was 2,123 and of women 734. Assuming that as regards food consumption the number of women would be equivalent to 0.8 as many men, or in round numbers 587, the calculated total number of men for the year would be 2,710, and that number of men for 365 days would be equivalent to 989,150 men for 1 day. Dividing the total quantities of each nutrient in the food supplied by this number gives the equivalent per man per day. These data are summarized herewith:

TABLE 30.—*Estimated amounts of nutrients and energy per man per day in the food issued from the storeroom for 1 year.*

	Protein.	Fat.	Carbohydrates.	Energy.
	Grams.	*Grams.*	*Grams.*	*Calories.*
Animal food	73	164	21	2,271
Vegetable food	54	8	496	1,836
Total food	127	172	517	4,107

It has been explained on page 12 that no studies were made with women patients; hence, nothing is definitely known concerning the relative food consumption of men and women inmates in this institution. The assumption above made that the women would eat 0.8 as much as the men is that commonly made in dietary studies of ordinary families, but in the studies in the New York State hospitals for the insane it was found that with the chronic patients the average amount eaten by women was only about 0.7 of that eaten by men, and with other classes of women patients it was even lower. The results as computed in the present instance are therefore believed to be under rather than over estimates, because if the factor that should be used is lower than 0.8, the equivalent number of men would be smaller than that given above, and the total number of men for one day would be less; consequently the average of nutrients and energy per man per day in the food supplied would be higher than has been computed by the method followed.

SUMMARY AND DISCUSSION.

The principal features of the investigations at the Government Hospital for the Insane, reported in this bulletin, have to do with the study of the quantities of food consumed and wasted by different classes of the hospital population. By comparing the data regarding food consumption with those of similar studies in other institutions,

and with dietary standards for persons in normal mental conditions with equivalent amounts of muscular activity, it is possible to judge of the adequacy of the diet; and a comparison of the amounts of food issued with those supplied to the dining rooms and those eaten and wasted affords information concerning the economy in the utilization of food. The statistics regarding food eaten and food wasted are summarized and discussed in the following pages.

The quantities of nutrients and energy per man per day in the total food served—i. e., that eaten and that rejected at the tables—and the proportion of the quantity of each nutrient and of energy in the total served that was rejected are summarized for all the studies at the Government hospital in Table 31. For convenience in the discussion of results the different studies in which the conditions were similar have been grouped together and averaged, and for purposes of comparison the results of studies made in similar institutions elsewhere are also included in the table, as well as dietary standards for persons in health with varying amounts of muscular activity.

A tentative standard for the average population of hospitals for the insane, proposed by Atwater as the result of studies made in the New York State hospitals for the insane,[a] is also given in the table. This standard, which is given in the publication referred to on the basis "per person per day," was proposed for a population consisting of about equal numbers of males and females, in which the food consumption of the latter averaged about 0.7 that of the former. The corresponding values "per man per day," computed in accordance with these data, is also given in the table, as this can be better compared with the results of the studies in the Government hospital, which were almost entirely with men. Such facts as could then be found on record, and the observations in the New York hospitals for the insane, led to conclusions that the standard proposed is decidedly liberal rather than the opposite.

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[a] N. Y. State Com. Lunacy Rpt. 13 (1900–1901), p. 119.

TABLE 31.—*Summary of results of dietary studies at the Government Hospital for the Insane and other institutions.*

Study No.	Patients.	Number of persons.	Food served. Food eaten. Protein.	Fat.	Carbohydrates.	Energy.	Food wasted. Protein.	Fat.	Carbohydrates.	Energy.	Proportion of total served that was wasted. Protein.	Fat.	Carbohydrates.	Energy.
	Studies at Government Hospital for Insane.													
	PATIENTS, MALES.		*Gm.*	*Gm.*	*Gm.*	*Cals.*	*Gm.*	*Gm.*	*Gm.*	*Cals.*	*P. ct.*	*P. c.*	*P. ct.*	*P. ct.*
364	Middle to old age, largely chronic, orderly, quiet, few workers.	541	88	112	384	2,885	9	6	35	229	9	5	8	7
372		74	95	98	348	2,644	27	22	112	752	22	18	24	22
373		99	94	93	369	2,680	17	14	63	445	15	13	15	14
375		47	64	91	253	2,078	28	22	97	696	30	19	28	25
377		42	81	112	334	2,657	22	16	73	522	21	13	18	16
378		21	84	82	377	2,674	19	19	75	555	18	19	17	17
380		39	92	97	349	2,627	11	8	36	259	11	8	9	9
384		30	79	83	364	2,511	13	8	56	347	14	9	13	12
385		30	105	102	409	2,964	5	2	27	146	5	2	6	5
386		29	97	99	386	2,813	9	4	49	268	8	4	11	9
	Average	952	88	105	370	2,767	13	10	50	341	13	9	9	11
368	Acute, nervous, and disturbed nonworkers.	26	76	86	378	2,581	26	20	129	798	26	19	25	24
376		30	65	92	294	2,255	29	26	97	735	31	22	25	25
379		38	104	108	375	2,877	13	8	38	275	11	7	9	9
	Average	94	84	97	350	2,599	22	17	82	567	21	15	19	18
	Negroes, whole group	169	98	84	349	2,536	12	8	49	315	11	9	12	11
374	Nonworkers alone	89	90	73	348	2,402	12	7	49	306	12	9	12	11
	Workers alone	80	108	96	352	2,694	13	8	49	319	11	8	12	11
366	Sick, infirm, and bedridden.	52	92	109	227	2,246	31	26	115	815	25	19	34	27
371		114	99	105	329	2,647	35	23	112	793	26	18	25	23
	Average	166	97	106	297	2,519	34	24	113	802	26	18	28	24
381	Some curable, part workers, younger and more active class.	30	110	132	347	3,003	12	12	24	251	10	8	6	8
382		29	98	118	348	2,834	12	14	21	257	11	11	6	8
	Average	59	104	125	347	2,917	12	13	23	256	10	9	6	8
387	Better class, on first-section diet.	13	128	144	416	3,458	28	23	90	657	15	14	18	16
388		9	120	156	359	3,304	31	35	107	861	21	18	23	21
	Average	22	125	149	393	3,398	29	28	97	753	19	16	20	18
367	Unclassified	103	72	82	385	2,558	20	17	90	591	22	17	19	19
383		24	95	101	383	2,811	10	18	33	332	10	15	8	11
	Average	127	76	86	385	2,609	18	17	79	539	19	17	17	17
	Average of all patients[a]	.....	90	102	359	2,704	16	12	61	415	15	12	15	13
	EMPLOYEES, MALES AND FEMALES.													
365	Attendants and kitchen employees	58	121	165	495	3,961	29	28	98	757	19	15	17	16
369	Attendants, house girls, etc	13	100	141	370	3,135	72	67	245	1,864	42	32	40	37
370	....do	27	131	198	578	4,598	45	36	157	1,128	26	15	21	20
389	Officers, clerks, etc	11	140	151	422	3,522	27	28	107	785	16	16	20	18
	Average	109	123	169	493	3,968	38	35	131	988	24	17	21	20
	Average all of patients and employees[a]	.....	92	106	368	2,783	18	14	65	457	16	12	15	14

[a] In all cases the averages per man per day given in this table are not numerical averages of the results of the several studies, but are found by dividing the total quantity of each nutrient or energy by the total number of days for one man.

TABLE 31.—*Summary of results of dietary studies at the Government Hospital for the Insane and other institutions*—Continued.

Study No.	Patients.	Number of persons.	Food served.								Proportion of total served that was wasted.			
			Food eaten.				Food wasted.							
			Protein.	Fat.	Carbohydrates.	Energy.	Protein.	Fat.	Carbohydrates.	Energy.	Protein.	Fat.	Carbohydrates.	Energy.
	Studies in New York hospitals.													
	PATIENTS, MALES.													
	Chronic, infirm, average 8 studies	1,069	*Gm.* 72	*Gm.* 65	*Gm.* 348	*Cals.* 2,259	*Gm.* 4	*Gm.* 2	*Gm.* 14	*Cals.* 90	*P. ct.* 5	*P. ct.* 3	*P. ct.* 4	*P. ct.* 4
	Light workers and disturbed, average 2 studies	318	73	65	346	2,255	4	2	15	94	5	3	4	4
	Restless, active, disturbed, average 2 studies	258	95	81	391	2,665	6	6	16	142	6	7	4	5
	Workers, average 10 studies	1,595	105	93	415	2,908	7	4	17	132	7	4	4	4
	Acute, recent admission, average 2 studies	70	65	86	363	2,477	7	5	22	161	9	7	6	6
	Acute and sick chronic, average 2 studies	35	66	80	364	2,432	4	2	15	94	6	2	4	4
	EMPLOYEES, MALES AND FEMALES.													
	Officers, attendants, etc., average of 6 studies	636	95	146	376	3,183	13	10	43	313	12	7	10	9
	Average of all patients and employees	.....	90	91	382	2,698	7	7	20	170	7	7	5	6
	Dietary standards for persons in health.													
	Man with moderately active muscular work	.....	125	.....	.....	3,400	.....	.....	.....	.....	.....	.....	.....	.....
	Man with light to moderate muscular work	.....	112	.....	.....	3,050	.....	.....	.....	.....	.....	.....	.....	.....
	Man with sedentary work	.....	100	.....	.....	2,700	.....	.....	.....	.....	.....	.....	.....	.....
	Woman with moderately active work	.....	100	.....	.....	2,700	.....	.....	.....	.....	.....	.....	.....	.....
	Man with very little exercise	.....	90	.....	.....	2,450	.....	.....	.....	.....	.....	.....	.....	.....
	Woman with light to moderate work	.....	90	.....	.....	2,450	.....	.....	.....	.....	.....	.....	.....	.....
	Woman with very little exercise	.....	80	.....	.....	2,200	.....	.....	.....	.....	.....	.....	.....	.....
	Proposed standard for insane hospitals.													
	Per person per day	.....	85	.....	.....	2,500	.....	.....	.....	.....	.....	.....	.....	.....
	Per man per day	.....	100	.....	.....	2,950	.....	.....	.....	.....	.....	.....	.....	.....

The studies reported in this bulletin are grouped in the table preceding according to the general conditions of the patients, since it was not feasible to make distinctions that would accord at all exactly with the amounts of muscular activity. The large majority of the patients were not especially active, though most of the studies included a few who did a small amount of light work each day, and who, by the custom of the institution, received a little extra ration. But, except in one study, the proportion of workers to nonworkers was so small

and the extra ration for them was so limited as compared with the total amount fed that in calculating the results each study was treated as if the patients were all nonworkers and all received the same diet. In the study excepted—No. 374—the proportion of working patients was large, and some of them did a considerable amount of outdoor work; consequently, account was kept of the amount of extra ration served, and the results of the study have been computed for the workers and nonworkers separately, as well as for the group as a whole.

AMOUNTS OF FOOD CONSUMED AND ADEQUACY OF THE DIET.

With the ordinary individual in good health and of sound mind, the normal bodily demand for nutrients and energy depends largely upon his muscular activity; and in discussing the results of dietary studies of such persons it is customary to compare the results obtained with dietary standards for men having about the same amount of muscular work as that of the persons studied. Standards of this sort, which have been very commonly used in this country and in England, are given in Table 31.

Of course, such standards are at best tentative. They are general indications rather than exact measures of the actual physiological demands of persons in health, and their uncertainty in this respect is still greater when they are applied to persons in demented or other abnormal condition. Data concerning the actual physiological needs of insane hospital patients of different classes are as yet very inadequate; hence, it is not certain to what extent dietary standards for persons in health may be compared with the results of studies with persons not in normal mental condition. Some authorities believe that the bodily demands of the insane do not materially differ from those of persons in health with a corresponding amount of muscular activity, while others think that acutely insane patients may require more nourishment, and the chronic classes probably somewhat less than is required by normal persons. It is believed, however, that a comparison of the results of these studies with the commonly accepted standards, and with the results of studies with similar patients in other institutions, will give a tolerably clear idea of the sufficiency of the diet for the bodily needs of the patients. Such a comparison can be made with the aid of the data included in Table 31.

The ten studies of the first group in the table above comprise those with patients from middle life to old age, largely chronic insane, orderly, and quiet. The proportion of patients who did any considerable amount of work was small. The amount actually eaten in these ten studies varied from 64 grams of protein and 2,078 calories of energy per man per day to 105 grams and 2,964 calories. It is interesting to note, however, that aside from these two extreme cases, the results for the individual studies agree in the main fairly well with

the average for the whole group, namely, 88 grams of protein and 2,767 calories of energy.

While the patients in these studies included a few at light work, it is doubtful if the average amount of muscular activity would be any greater than that of the average normal individual with "little exercise." The dietary standard given in the table above for men under such circumstances calls for 90 grams of protein and 2,450 calories of energy per day. If the bodily demands of these patients for nourishment were dependent upon their muscular activity, it would seem from such a comparison that they were very well nourished. Among the studies in the New York hospitals the group most nearly similar to these was that designated as "light workers and disturbed." The average consumption in studies with such patients was 73 grams of protein and 2,255 calories of energy per man per day, which was considerably below the average for these patients at the Government hospital. The patients of this class, as of others in the New York hospitals, had all the food they wanted; indeed, generally speaking, much more was served to them than they cared to eat, and there were no indications of underfeeding.

In the three studies in the second group in the table above the patients were so nearly of the same general class that it would be expected that the food consumption in one study would not differ greatly from that in another. The results as actually observed showed a range of protein from 65 to 104 grams, and of energy from 2,255 to 2,877 calories. Such differences, of 40 grams of protein and 600 calories of energy between the largest and smallest food consumption of the three, are rather surprising. It has already been stated in the account of the individual studies that the patients in study No. 376, with the lowest food consumption, appeared to be sufficiently nourished, though it can not be affirmed that they would not have been better nourished if they had eaten more. The opinion of the observer and attendants in charge, that these patients had enough, was based to some extent on the fact that the food provided was palatable and seemed satisfactory to them; furthermore, the quantities served to them were generous, so that they could have eaten more if they wished it. This was true also in the case of the patients in study No. 368, in which the consumption was also considerably smaller than that in study No. 379. It should be observed, however, that it is by no means always true that persons in normal mental health are able to adapt their food consumption to their actual bodily needs, regardless of the amount of food provided for them or their relish for it, and it may be even more generally true that persons as mentally irresponsible as were many of these patients, lack judgment in this respect. Doubtless there were some individuals who would not eat all that their bodies required, however much was set before them or however attractive or palatable the food might be.

Possibly there were some to whom the food was decidedly unattractive, so that their appetites were not stimulated. But it is difficult to believe that any large proportion failed to obtain sufficient nourishment, and the opinion that the subjects of these studies were not undernourished seemed to be justified by their appearance and general condition.

On the other hand, it could not be affirmed that the patients in study No. 379, whose average food consumption was so much larger than that in either of the other studies, were overfed. No explanation of the wide differences in the results of these three studies can be given other than that the inclinations of the patients seemed to vary. While it was the opinion of those in charge that the food consumption in each case during the time of these studies was about the same as usual, it is not certain that similar studies with the same patients at another time would not have given results showing more uniformity between the individual studies, as was the case in the preceding group.

The results in these three studies (Nos. 368, 376, and 379) are so varying that the average can hardly be taken as representative; yet it is interesting to note that such an average is close to the standard mentioned above for a man in health with very little muscular activity. Among the studies in the New York hospitals the average consumption in two with patients classed as "light workers and disturbed" was 73 grams of protein and 2,255 calories of energy per man per day, and the average in two studies with patients classed as "restless, active, and disturbed" was 95 grams of protein and 2,746 calories.

Study No. 374 was made with a group of negro patients, a large proportion of whom were workers, some doing considerable amounts of outdoor work. Considering the group as a whole, as has been done in all the other studies, the average consumption was 98 grams of protein and 2,536 calories of energy per man per day. It has seemed best in this case, however, to consider the consumption of the workers and the nonworkers separately, since there were so many of the former in the group. The results of calculations according to such a division of patients, and taking account of the extra ration for the workers, gives an average consumption of 108 grams of protein and 2,694 calories of energy for the workers and 90 grams of protein and 2,402 calories of energy per man per day for the nonworkers. The results for the nonworkers correspond quite closely to the dietary standard given above for a man with "little exercise." The results for the workers are a trifle lower in protein and noticeably lower in energy than the standard given for men with "light to moderate muscular work." The amount of work done by these patients would probably be on the average no less than that which would be represented by the standard. The results of 10 studies of patients classed as "workers" in the New York hospitals gave an average consumption of 105 grams of protein and 2,908 calories of energy per man per day, which, like

the standard, was somewhat higher in energy than the results of study No. 374.

While the subjects of study No. 374 at the Government hospital did not appear to be undernourished, still it is probable that they would have been more adequately nourished if their diet had supplied a larger quantity of energy. They apparently had large appetites, and, as mentioned in the discussion of the results on page 49, the amount of food supplied to the dining room was frequently insufficient to satisfy them, so that it was necessary to send to the kitchen for more.

Studies Nos. 366 and 371 were with patients in poor health, many of them infirm and bedridden. The average amount of muscular activity of these patients was very small indeed, and a diet furnishing 97 grams of protein and 2,519 calories of energy, the average consumption per man per day for those two studies, would seem to be, at least in regard to protein, more than sufficient for their bodily needs. In the investigations in the New York hospitals the average consumption in eight studies with infirm patients was 72 grams of protein and 2,331 calories of energy per man per day, and the average of two studies with acute and sick patients was 65 grams of protein and 2,553 calories of energy.

The patients in studies Nos. 381 and 382 were younger and more active than those in the preceding groups. They were, on the whole, less demented, and with some of them there was hope of recovery. About half of the number in one study and about a third in the other were workers. The food consumption was a little larger in the former study, owing, no doubt, to the large proportion of working patients, to whom extra rations were served. The average for the two studies, 104 grams of protein and 2,917 calories of energy, approximates the standard given above for normal individuals with light to moderate muscular work, being a little lower in protein and a little higher in energy than the standard.

Studies Nos. 387 and 388 contained a large proportion of "paying patients," who were not classed as insane, but were recovering from dipsomania, the effects of fever, etc. They received the "first section's" diet, which was somewhat different from that served to the patients in other departments. They were allowed to go about the grounds at will and spent much of their time out of doors. They were all more or less active and took considerable exercise each day, but their total muscular activity was by no means equal to that of an ordinary individual at "moderately active muscular work." Their food consumption, however, averaging 125 grams of protein and 3,398 calories of energy per man per day, was equivalent to the standard quoted for such persons.

The patients in studies Nos. 367 and 383 were less easily classified than those in the other groups. Study No. 383 comprised patients of widely differing ages—from children to old men. Some were fairly

quiet and orderly chronic patients, while others were practically idiots. Very few of them did any work. The group included in study No. 367 was made up of adult chronic patients, all nonworkers. The food consumption in one study was but 72 grams of protein and 2,558 calories of energy per man per day, while in the other it was 95 grams of protein and 2,811 calories of energy, the average for the two being lower than that of the ten studies in the first group in the table.

The last group in the table comprises the four studies with employees, including officers, clerks, ward and dining-room attendants, waiters, and house girls. The average amount of muscular work which they performed might perhaps be equivalent to that of persons with "light to moderate muscular work," possibly greater. The conditions in the different studies with respect to the amount of muscular work did not vary so much, however, as to account for the wide differences in food consumption observed, the quantity of protein as calculated per man per day varying from 100 grams in one study to 140 in another, and the energy from 3,135 to 4,598 calories. The average for the four studies—i. e., 123 grams of protein and 3,968 calories of energy—was the same as regards protein and higher as regards energy than the standard given above for men at "moderately active muscular" work. The indications are that these employees were very generously nourished. In the New York hospitals the average food consumption in six studies with employees, including both men and women, was 95 grams of protein and 3,183 calories of energy per man per day.

Considering the total number of studies with patients (No. 374 being taken as two studies rather than as one), the average food consumption was 90 grams of protein and 2,704 calories of energy per man per day. In a few of the studies the consumption was appreciably higher or lower than this average, but in the majority of cases the variations were not unusual, so that the average may be taken as a fair representation of the food consumption of the patients studied. Inasmuch as the amount of muscular activity of a large majority of the patients was very small, a diet furnishing such quantities of protein and energy would seem to be larger than actually necessary to satisfy their bodily needs. The standard given above for men in ordinary circumstances "with little exercise," 90 grams of protein and 2,450 calories of energy is supposed to be decidedly generous, yet as regards energy it is noticeably lower than this average consumption. The 26 studies with male patients of various classes in the different New York hospitals averaged 90 grams of protein and 2,698 calories of energy, but this included 10 studies with patients classed as workers, in which the average consumption was greatest, whereas in the studies at the Government hospital only a very small proportion of the patients were workers. As already stated, there were no indications that the subjects of the studies in the New York hospitals were not adequately nourished.

Taking all the studies at the Government hospital together, both those with patients and those with employees, the food consumed furnished on an average 92 grams of protein and 2,783 calories of energy per man per day. This is, it should be remembered, an average of studies almost entirely with men. There were some women among the attendants with whom studies were made, but their food consumption has been computed as equivalent to eight-tenths as much as that of the same number of men similarly employed, and accordingly the results are all given per man per day. There was not time to complete studies in all the wards of the institution, and as the female patients comprised only a little over a fifth of the total number, it was believed to be more important to make as many studies as possible with the male patients. Consequently nothing is known by actual study concerning the food consumption of the women patients. Their diet was in general the same in kind as that for the men, and so far as could be estimated the amounts supplied were about three-fourths as large as for the same number of men; but whether the amounts eaten were in the same proportion could not be ascertained without actual investigations.

Whether the average just stated would be a fair representation of the food consumption of men in the whole institution it is impossible to state with certainty, because there were a number of wards in which no studies were made with either patients or employees. However, from observations made in some of these wards, it was believed that in respect to both their physiological needs and their actual food consumption the persons not included in the studies did not differ materially from those studied. Inasmuch as the number of persons included in the studies was more than half of the total population of the hospital, and represented most, if not all, the different classes of employees and male patients, and furthermore since the proportion of employees to patients in the groups studied was below rather than above that of the whole institution, it seems reasonable to consider that the average of 92 grams of protein and 2,783 calories of energy per man per day would not be larger than the food consumption of at least the male population of the hospital, which, as mentioned above, comprised about three-fourths of the whole. A similar average for studies in the New York hospitals, including the 26 with male patients and 6 with employees, was 90 grams of protein and 2,698 calories of energy.

Considering both patients and employees it thus appears that as a whole the population of the Government hospital consumed almost exactly the same amounts as the average for similar groups in the New York State hospitals. From such a comparison, and judged by the commonly accepted dietary standards for men with similar amounts of muscular activity, it is evident that the population of the Government

hospital received a diet generous as regards the amounts of protein and energy supplied. It seems fair to conclude, therefore, that the diet was certainly adequate for their needs.

AMOUNTS OF FOOD WASTED AND ECONOMY IN UTILIZATION OF FOOD.

Of the total food brought into the hospital, by no means the whole is eaten. A portion of some food materials consists of inedible substance, such as the bone of meat, the shells of eggs, the skins and seeds of vegetables, and the like, which is commonly designated as refuse, and is taken into account in considering the composition of the food and computing the quantity of nutrients it contains. But in addition to this, more or less edible material is lost in various ways. There are losses in the storeroom due to handling and in some cases to deterioration and decay. For instance, in cutting up large pieces of meat, like a side of mutton or a quarter of beef, into smaller cuts, edible material is often lost in trimming out bone and surplus fat. There are losses in the kitchen in preparing and cooking foods. In paring vegetables, as potatoes or squash, for example, it is not easy to cut off the skin without taking also more or less of the nutritive material beneath the skin, the amount thus lost depending of course upon the character and condition of the vegetables and the care observed in paring. In transferring food from the kettles and pans in which it is cooked to the dishes in which it is carried to the table, more or less adheres to the cooking utensils and is thus lost. Of the food which is sent to the dining room not all is actually served, the amounts provided being commonly larger than are needed to feed the persons in the dining room. More or less of the "left-over" material is returned to the kitchen and used in preparation of "made dishes" to be served later, but a portion of it is wasted. Finally, a portion of the food which is served at the tables is frequently left uneaten on the plates, and as such residue is of course unfit for serving again, it is utilized only as food for swine.

In short, it is practically impossible to store, prepare, and serve food without more or less loss of edible material, the amount lost depending upon the conveniences for storing and handling, the care and intelligence of the persons who do the work, and the extent to which food served is actually eaten. These losses, whether inevitable or due to carelessness, are designated as "waste," as distinguished from refuse, a term which is explained above. As explained on a later page, some waste is unavoidable, and a reasonable amount is not incompatible with good management.

For a comprehensive discussion of the utilization of food it would be necessary to consider the amounts purchased by the hospital and brought into the storeroom, the amounts supplied from the store-

room to the different kitchens, the amounts lost in the kitchens—i. e., the kitchen waste incident to the preparation of food, and the amounts lost in the dining rooms, i. e., table waste due either to failure to return "left-over" edible food to the kitchen for future use or to excessive serving and consequent waste on the plates.

Just how large a proportion of the total food of the Government hospital was wasted it is not possible to determine from these investigations. Exact statistics regarding the quantities of food purchased and brought into the storeroom were not conveniently available; hence, the loss due to shrinkage, deterioration, etc., could not be ascertained. Regarding the losses in other ways enumerated above, however, the data collected in the investigations afford considerable information, and these data are summarized and discussed in the following pages.

DINING-ROOM OR TABLE WASTE.

The figures of the dietary studies showing the total amounts of food served, eaten, and wasted in the dining room, given in detail in Table 35 of the Appendix, are here summarized in the table which follows.

TABLE 32.—*Summary of data regarding total amounts of food provided, returned, eaten, and wasted.*

Dietary study.	Total food provided.		Food returned.			Food served.				Proportion of food provided.	
			Total.		Proportion of food provided.	Food eaten.		Food wasted.		Eaten.	Wasted.
	Kilos.	*Pounds.*	*Kilos.*	*Lbs.*	*Per ct.*	*Kilos.*	*Pounds.*	*Kilos*	*Pounds.*	*P. ct.*	*P. ct.*
No. 364	5,910.3	13,002.7	32.3	71.1	0.5	5,270.3	11,594.7	607.7	1,336.9	89.2	10.3
No. 365	1,266.2	2,785.6	167.3	368.1	13.2	889.8	1,957.6	209.2	460.2	70.3	16.5
No. 366	805.3	1,771.7	10.7	23.5	1.3	610.1	1,342.2	184.5	405.9	75.7	23.0
No. 367	1,151.7	2,533.7	65.2	143.4	5.7	834.3	1,835.5	252.2	554.8	72.4	21.9
No. 368	331.4	729.1	9.5	20.9	2.9	236.5	520.3	85.4	187.9	71.4	25.7
No. 369	306.0	673.2	20.7	45.5	6.8	159.9	351.8	125.5	276.1	52.2	41.0
No. 370	628.9	1,383.6	32.1	70.6	5.1	453.9	998.6	142.9	314.4	72.2	22.7
No. 371	2,361.9	5,196.2	22.7	49.9	1.0	1,850.0	4,070.0	489.2	1,076.2	78.3	20.7
No. 372	979.0	2,153.8	.....	.....	.....	719.4	1,582.7	259.6	571.1	73.5	26.5
No. 373	1,177.2	2,589.8	.....	.....	.....	989.5	2,176.9	187.7	412.9	84.0	16.0
No. 374	1,925.6	4,236.3	23.6	51.9	1.2	1,629.7	3,585.3	272.4	599.3	84.6	14.2
No. 375	494.9	1,088.8	17.1	37.6	3.5	331.3	728.9	146.5	322.3	66.9	29.6
No. 376	320.8	705.8	2.7	5.9	.8	218.0	479.6	100.0	220.0	68.0	31.2
No. 377	470.4	1,034.9	.....	.....	.....	364.1	801.0	106.3	233.9	77.4	22.6
No. 378	298.1	655.8	23.5	51.7	7.9	216.3	475.9	58.4	128.5	72.6	19.5
No. 379	499.5	1,098.9	25.4	55.9	5.1	412.4	907.3	61.6	135.5	82.6	12.3
No. 380	517.7	1,138.9	62.7	137.9	12.1	383.0	842.6	72.0	158.4	74.0	13.9
No. 381	391.1	860.4	33.1	72.8	8.5	330.5	727.1	27.5	60.5	84.5	7.0
No. 382	391.1	860.4	43.7	96.1	11.2	322.8	710.2	24.6	54.1	82.5	6.3
No. 383	335.8	738.8	50.8	111.8	15.1	262.3	577.1	22.7	49.9	78.1	6.8
No. 384	429.0	943.8	89.2	196.2	20.8	298.7	657.1	41.1	90.4	69.6	9.6
No. 385	412.7	907.9	45.4	99.9	11.0	348.3	766.3	19.1	42.0	84.4	4.6
No. 386	409.8	901.6	40.3	88.7	9.8	343.7	756.1	25.9	57.0	83.9	6.3
No. 387	258.8	569.4	30.2	66.4	11.7	185.3	407.7	43.2	95.0	71.6	16.7
No. 388	210.0	462.0	35.3	77.7	16.8	137.3	302.1	37.4	82.3	65.4	17.8
No. 389	263.0	578.6	24.2	53.2	9.2	197.1	433.6	41.7	91.7	74.9	15.9
Average of 26 studies	867.2	1,907.8	34.9	76.8	4.0	692.1	1,522.6	140.2	308.4	79.8	16.2

The first column, headed "food provided," shows in the case of each study the total quantity of food sent from the kitchen where it

was prepared to the dining room or ward where it was to be used. The second column, "food returned," shows how much of the food left after serving was sent back to the kitchen to be used again in "made dishes" or otherwise disposed of. The latter quantities therefore represent an excess of food provided over what was needed to serve the persons included in the study; but they do not show how much of an excess there was in each case, because some food left over from serving was not returned to the kitchen. When the amount was small, it was commonly thrown into the receptacles for the material left upon the plates.

The data in the table show a wide variation in the quantities of food returned in different studies. In some cases there was none, but in several 10 per cent or more, and in one case over 20 per cent of the total amount of food provided was returned to the kitchen, even after the patients had been generously served. Averaging the data for all the studies, the quantity of food returned was equivalent to about 4 per cent of the total food provided.

It is not to be inferred that in those studies in which no food was returned the amount provided was not in excess of what was necessary to serve the persons fed. The matter of returning food was left entirely to the discretion of the persons in charge of the serving, who appeared to follow no regular system and most of whom had no uniform custom. Meat and potatoes were quite generally returned, but in the case of the other materials, some of the attendants were careful to return whatever was left over; some returned only the larger quantities; and some returned none, but added all that was left from serving to what was left upon the plates after the meal. In the studies for which there is no record of food returned, therefore, the excess of food provided over food served may have been added to the waste in the dining room. It was not possible to get exact statistics in each study concerning the amounts actually left after serving, though it was possible to take account of whatever was actually returned to the kitchen.

While part of this excess material was utilized again, part of it was wasted after it was returned to the kitchen; that is, though wholesome and fit for use on the table, it was given to the pigs. Just what proportion was utilized it was not found practicable to determine by actual weighings, but from observation and inquiry it was learned that meat and potatoes thus returned to the kitchen were generally utilized, the former sometimes for serving cold, and both sometimes for hash. Bread returned was also used for pudding, but little or no provision was made for saving most other "left-over" materials and preparing them for serving again in other forms.

The term "food served" as used in Table 32 and in the corresponding table of the Appendix has reference to the portion of the "food

provided" that was disposed of in the dining room, including both the amounts of food which were actually eaten and those which were wasted. The total quantity thus designated is therefore equal to the difference between that provided and that returned. As a matter of fact, there is an inaccuracy in the account of "food served" which, though of minor importance, should be mentioned, namely, that part of what is designated as "food wasted," and accordingly enters into the account of food served, had never been served and should have been returned to the kitchen.

In gathering the data regarding food wasted at the end of each meal the different kinds of food in the rejected material were separated and the quantity of each was determined. In most cases the larger part of this material consisted of what was left upon the plates, but to some extent it comprised also food that had not been served; because, as mentioned above, when the amount of food left in the serving dishes was not large it was frequently added to what was left upon the plates instead of being returned to the kitchen for future use, and indeed in some cases all of such "left-over" material, except meat and potatoes, was thus disposed of. Inasmuch as under the circumstances it was impracticable to have such material kept separate from material actually left upon the plates, it was necessary to record the whole as "food wasted." It would seem therefore more appropriate to consider the whole as "dining-room" rather than as "table" waste.

The amount of food wasted in the dining room in some of the studies was relatively small, while in others it formed a considerable proportion of the total food provided, the range being from 5 per cent in study No. 385 with patients, to 41 per cent in study No. 369 with employees. In 16 of the studies the proportion was above 15 per cent, in one it was 14 per cent, and in the remainder it was between 5 and 12 per cent. On an average for the studies with patients the amount of food thus wasted was 16 per cent of the total amount provided; for those with employees it was 24 per cent; considering all the studies together it was 16 per cent.

It would be still more interesting if possible to compare the amounts wasted in the dining room with those served, because such comparison would afford a better idea of how much food was served in excess of the amounts actually eaten, the latter being, of course, the difference between the amounts served and those wasted. The difficulty in making such a comparison as just explained was that the dining-room waste included some material that was never served.

Such considerations of the total amounts of food eaten and wasted are interesting, but the quantities of nutrients and energy per man per day are of more significance. With regard to food eaten and wasted these data form part of the account of the different studies on pages 19 to 71 and are summarized in Table 31. The quantities of

nutrients and energy in the food returned were also calculated, although the results of the computations are not given in detail. It was explained above that a part of this returned material, chiefly the meat, bread, and potatoes was utilized again and the remainder wasted, and the computations of the quantities of nutrients and energy in the returned material that was wasted were made on this basis.

Strictly speaking, this is not a part of the table waste, which, as explained above, is material wasted at the plates; nor is it a part of the kitchen waste, which is loss in the preparation and cooking of food. Since it was actually wasted in the kitchen it might be more logical to consider it along with the latter, but for convenience it is here discussed with dining-room waste. Another reason for considering it here is that part of the material designated in the tables as "food wasted" should really have been returned to the kitchen.

The quantities of nutrients and energy per man per day in the food consumed and wasted are summarized in the following table. The data here included are average values derived from the results of all the dietary studies, and probably represent the conditions for the whole institution:

TABLE 33.—*Summary of data regarding nutrients and energy per man per day in food consumed and wasted.*

	Protein.	Fat.	Carbohydrates.	Energy.
	Grams.	*Grams.*	*Grams.*	*Calories.*
In food actually eaten	92	107	368	2,792
In dining-room waste	18	14	65	457
In food returned:				
Used again	5	4	11	100
Wasted	1	2	8	54
Total in food provided	116	127	452	3,403

By referring to Table 31 it will be observed that the table waste ranged from 5 grams of protein and 146 calories of energy per man per day in study No. 385 to 72 grams of protein and 1,864 calories of energy in study No. 386. The average for the total number of persons included in the studies, given in the table above, was 18 grams of protein and 457 calories of energy. If to this is added the portion of returned food that was eventually wasted, the total amount of waste was sufficient to supply on an average 19 grams of protein and 511 calories of energy per man per day.

With regard to the food returned it may be observed that, while the quantity that was eventually wasted was relatively large in comparison with the total returned, in actual nutritive value it was of much less importance than that used again; for, as seen from the table above, the latter contained 83 per cent of all the protein and 65 per cent of all the energy of the food returned.

Considering all the data in the table it would appear that the food provided, that is, sent from the kitchen to the dining room, was sufficient to supply 116 grams of protein and 3,403 calories of energy per man per day.

KITCHEN WASTE.

The data recorded in the investigations did not include an account of the total amount of food brought into each kitchen. Hence, it is not possible to determine the total amount of kitchen waste. It is possible, however, to make a general estimate on the basis of the quantities of nutrients and energy per man per day sent to the kitchen.

As explained on page 71, statistics were obtained regarding the amounts of food issued from the storeroom to all the kitchens of the institution for a year, and the quantities of nutrients and energy per man per day were computed on the basis of the average population for the year. These results are given in Table 30 on page 72. In Table 33 are summarized the results of the investigations regarding the quantities of nutrients and energy per man per day in the food sent from the kitchens to the dining rooms. There is therefore an opportunity to compare average figures for food received in the kitchens from the storeroom and food sent from the kitchens to the dining rooms. The difference should represent loss incident to preparation and cooking. Such a comparison is given in the following table:

TABLE 34.—*Summary of data regarding nutrients and energy in kitchen waste.*

	Protein.	Fat.	Carbohydrates.	Energy.
	Grams.	*Grams.*	*Grams.*	*Calories.*
In food issued from storeroom	127	172	517	4,107
In food supplied to dining rooms	116	127	452	3,403
In kitchen waste	11	45	65	704

Strictly speaking, such a comparison is not warranted for two reasons. In the first place, as already explained, the average consumption for the whole population can not be determined from the investigations reported, because these do not include any studies with women patients; hence, nothing certain is known regarding the consumption of the women as compared with that of the men. In making the computations regarding food issued it was assumed that the food consumption of a woman would be eight-tenths that of a man. In the second place, the statistics obtained for the food issued from the storeroom to the kitchens of the whole institution were not for the same period as that in which the studies were made, but for the year just preceding. However, so far as could be ascertained from a cursory examination of the accounts for the period of the studies, the supplies for the two years differed so little in character and amount that the esti-

mate of the quantities of nutrients and energy per man per day in the food for the preceding year would at least give some indication of what they might be during the year in which the studies were made. With regard to the assumption that the average of the results of the studies with regard to food eaten, wasted, etc., may be taken as representative of the whole population, it may be stated that the number of persons included in the studies was more than half of the total population, and indeed considerably more if the number of women be considered as equivalent to eight-tenths the same number of men. The larger part of the population, nearly three-fourths, consisted of men, and the different classes of male patients were believed to be fairly well represented in the studies made. The groups of employees included in the studies were also considered representative. It therefore seems reasonably fair to make the comparison as given in the table above.

From the data thus compared it would appear that the amount of food lost in the kitchen in connection with the preparation and cooking of food and transferring it to dishes to be carried to the dining room was sufficient to supply 11 grams of protein and 704 calories of energy per man per day.

TOTAL DINING-ROOM AND KITCHEN WASTE.

Combining the data in Tables 33 and 34 above regarding waste of returned food and dining-room and kitchen wastes would indicate that the total loss of food in these ways was sufficient to furnish on an average 30 grams of protein and 1,215 calories of energy per man per day. Similar computations from the results for food supplied and food consumed in the studies made in the New York hospitals[a] showed a loss sufficient to supply 40 grams of protein and 1,143 calories of energy per man per day. In other words, in respect to actual nutritive value, the loss in the Government hospital was about 25 per cent, and in the New York hospitals about 30 per cent of that of the total food. In institutions of this sort some loss of food is inevitable, and what might perhaps reasonably be considered a normal amount may be an appreciable proportion of the total provided. Even in private families and in boarding houses, not all the food purchased is actually eaten. In upwards of 500 dietary studies of such groups in different parts of this country, the waste of food among private families has ranged from practically none, where the diet was extremely simple, to as high with a more varied diet as 8 or 10 per cent of the total purchased; and in boarding houses and students' clubs, even where economy was desired and sought, it has been not uncommonly 10, and in some exceptional cases even 20 per cent. In larger establishments, such as hospitals for the insane, economy in dietary management is a more

[a] N. Y. State Com. Lunacy Rpt. 13 (1900–1901), p. 116.

difficult matter than in ordinary families or boarding houses, and even with the most careful management the losses may easily be larger.

PREVENTION OF WASTE.

Just what proportion of the waste of food in the Government hospital could have been prevented can be determined only by investigation and experiment; but from a consideration and comparison of the statistics for the individual studies it would appear that in many cases the amount was decidedly larger than would seem necessary. That some of the loss could have been prevented is evident from a consideration of the way in which losses may occur.

The food wasted in the dining room consisted in part of material left in the serving dishes, but mostly of what was left uneaten upon the plates. The waste of food that had not been served was due to failure on the part of those in charge of the dining rooms to return such material to the kitchen, owing either to carelessness or lack of instruction in the matter of preserving "left-over" material for future use. It would seem that this waste could be easily prevented, either by more care on the part of those in charge of the serving, or by reducing the quantity sent to the dining room to more nearly that which would be required to feed the patients.

The waste upon the plates is less easily prevented. Food may be left uneaten for various reasons. There may be a natural lack of appetite with individuals; or the food may be unsuited to their tastes. Furthermore, because improperly cooked or flavored or unattractively served, it may fail to stimulate the appetite; or it may be unfamiliar or too familiar in appearance or taste to be palatable. On the other hand, the amount served to each individual may be in excess of his needs or desires. In one study, for instance, breakfast foods, meat stews, and leguminous soups were not relished, and from a fourth to a third of the oatmeal and nearly half of the hominy served were wasted. Obviously the amounts served in this case were excessive, and a reduction in quantities served would have materially reduced the waste. This could have been done without affecting the adequacy of the diet, because in spite of the large waste the amounts of nutrients and energy of the food actually eaten were believed to be sufficient for the needs of the subjects.

Frequently one of the principal causes of table waste is unsatisfactory preparation of food, including cooking, flavoring, garnishing, etc. When food is well cooked and tastefully served, and so attractive to the eye as well as pleasing to the palate, it is much more apt to be economically eaten than when the preparation and serving are less carefully done. A considerable part of the pecuniary, and, indeed, the hygienic, economy of nutrition depends upon the methods of handling the food in the kitchen and dining room. This is a matter

to which naturally much more attention can be given in a small family than is possible in a large institution, but even in the latter it is worthy of more consideration than is sometimes given.

So far as evidence was obtained in the course of these investigations, however, the rejection of food could be attributed less to any failure in the matter of preparation than to other causes. In general a close supervision was kept over the work of preparing food, the cooking was well done, and seasoning or flavoring was as carefully attended to as was possible under the circumstances. This has been particularly mentioned in the discussion of study No. 364, on page 23. It is believed that in this respect the conditions at this hospital would compare most favorably with those in similar institutions elsewhere.

It is true, however, that the food may be well prepared and attractively served and still be rejected in considerable proportion unless it has a familiar appearance and taste, because people generally prefer the kind of food to which they have been accustomed; and frequently, especially when ordinarily they have been used to little variety, they do not at first relish what is novel to them. Such considerations suggest that for the most successful and economical feeding of persons in institutions it is essential to take account of their previously acquired food habits. Obviously, however, with a large number of individuals of widely varying habits, it would be difficult to prepare a satisfactory diet that would in all respects be familiar to each one. But it is easy to exclude materials which are more or less unfamiliar or distasteful to many of them, and which would very likely be left uneaten. Failure to do this may have been the reason for the large amount of some of the foods rejected in these studies; for instance, wheat breakfast foods were left uneaten in large proportions in nearly every study, though oatmeal was evidently relished.

On the other hand, monotony in the diet is especially to be avoided, as this has a decided tendency to diminish the relish for food. This effect has been observed to follow where there is a uniformity in the rotation of the menu—that is, where the same menu is used on the same day in successive weeks, as is frequently the case in institutions. Under such circumstances a large number of persons associate the days of the week with the kind of food that will be served, and the pleasurable sensation that acts as a sort of stimulation to appetite when the nature of the meal is more or less of a surprise is lost. Under such circumstances the amount eaten is generally smaller. These conditions were present to an appreciable extent in some of the studies here reported.

In addition to such conditions which fail to stimulate and may even take away desire for food, there may be a natural variation in appetite from day to day, which may result from differences in either physical or mental conditions, and this would affect the quantity of food

consumed. Under such circumstances, where the plan is to provide enough for all when conditions of appetite are normal, there would, of course, be more or less waste which it would be difficult to avoid. It could be materially reduced, however, by providing amounts for serving which are based upon the observed consumption through considerable periods.

Waste can not be entirely avoided; more or less is inevitable; but it can be kept at a minimum. It is possible, even in large institutions, to provide for the utilization of food so that the losses shall be small. This can be accomplished by a better understanding of the nutritive values of different foods and of the demands of people for nourishment, and by improvements in the methods of preparing, cooking, and serving the food. Under such conditions it would be possible to provide a palatable, attractive, and nutritious diet at minimum cost. That reduction of cost was possible was demonstrated in the course of the studies here reported. From time to time opportunities for improvement were pointed out to the late Dr. Richardson, then superintendent, and were promptly acted upon by him; and he stated that, in his opinion, as a result of the investigations, the cost of the food during the last six months of the year was lower than for any corresponding period during his connection with the institution, and at the same time the general character of the diet was not changed nor was the standard lowered in any way.

APPENDIX.

The statistical details of the investigations, from which the data discussed in the preceding section of the bulletin have been derived, are given here. These include the records of the kinds and amounts of food used in the dietary studies, the account of the food issued from the storeroom for a year, the table of percentage composition, and data for the computation of the composition of cooked foods.

STATISTICS OF FOOD USED.

The first column in Table 35 below, headed "Food provided," shows the amount of each kind of food sent from the kitchen to the dining room. The second column, "Food returned," shows the amount of each food left after serving in the dining room that was returned to the kitchen. The third column shows the amount of each food that was actually eaten, and the next three columns the quantities of protein, fat, and carbohydrates it contained. The seventh column shows the amount of food wasted in the dining room, including both that left at the plates and that left in the serving dishes and not returned to the kitchen. It was not found practicable to obtain separate accounts of actual table waste and material that should have been returned but was added to the table waste. The next three columns show the quantities of nutrients in the food wasted in the dining room. The final column shows the percentage of "Food provided" that was wasted in the dining room.

The figures in parentheses after the name of each food are the same as given for the same material in the column headed "Reference number" in Table 37 beyond, and indicate the percentage composition used in calculating the quantities of nutrients in the amount of food.

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies.*

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 364.											
ANIMAL FOOD.											
Beef and mutton:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Boiled (7)	66,225	.....	60,669	14,621	21,720	.....	5,556	1,339	1,989	.....	8
Boiled (6)	12,474	.....	10,206	3,246	2,888	.....	2,268	721	642	.....	18
Corned (30)	64,071	2,495	55,679	16,648	28,007	.....	5,897	1,763	2,966	.....	9
Liver (11)	24,721	.....	22,453	5,838	3,480	449	2,268	590	352	45	9
Roast (16)	35,040	.....	29,257	7,636	10,708	.....	5,783	1,509	2,117	.....	16
Sausage, Bologna (35)	9,866	.....	8,278	1,548	1,457	25	1,588	297	279	5	16
Steak (24)	49,896	.....	46,381	14,007	9,369	.....	3,515	1,062	710	.....	7
Mutton roast (40)	2,948	.....	2,948	737	666	.....	.....	.....	.....	.....	.....
Total	265,241	2,495	235,871	64,281	78,295	474	26,875	7,281	9,055	50	10
Pork, lard, etc.:											
Bacon (50)	15,422	.....	15,422	3,069	9,454	.....	.....	.....	.....	.....	.....
Ham (54)	454	.....	454	101	151	.....	.....	.....	.....	.....	.....
Sausage, Frankfort (63)	9,299	.....	8,505	1,667	1,582	94	794	155	148	9	9
Sausage, pork (60)	39,236	.....	39,236	8,318	26,759	706	.....	.....	.....	.....	.....
Shoulder (56)	75,637	.....	68,720	15,530	27,831	.....	6,917	1,563	2,801	.....	9
Total	140,048	.....	132,337	28,685	65,777	800	7 711	1,718	2,949	9	6
Fish:											
Cod, baked (68)	55,793	.....	44,453	5,734	89	.....	11,340	1,463	23	.....	20
Mackerel, salt (78)	36,174	.....	29,824	6,591	10,081	.....	6,350	1,403	2,146	.....	18
Total	91,967	.....	74,277	12,325	10,170	.....	17,690	2,866	2,169	.....	19
Butter (88)	167,378	.....	167,378	1,674	142,271	.....	.....	.....	.....	.....	.....
Cheese (89)	55,339	.....	54,432	14,098	18,344	1,306	907	235	306	22	2
Evaporated cream (90)	45,814	.....	45,814	4,398	4,261	5,131	.....	.....	.....	.....	.....
Total animal food	765,787	2,495	710,109	125,461	319,118	7,711	53,183	12,100	14,479	81	7
VEGETABLE FOOD.											
Cereals:											
Bread (133)	1,345,831	.....	1,204,081	110,775	15,653	639,367	141,750	13,041	1,843	75,269	11
Cake (137)	38,783	.....	38,783	2,443	1,784	22,067	.....	.....	.....	.....	.....

Crackers, soda (134)	98,204	.....	94,916	9,302	8,637	69,384	3,288	322	299	2,404	3
Gingerbread, etc. (141)	82,101	.....	82,101	4,762	7,389	52,134	.....	.....	.....	.....	.....
Hominy (92)	53,184	.....	28,236	508	452	4,715	24,948	449	399	4,166	47
Oatmeal (104)	212,625	.....	165,791	4,642	1,989	18,569	46,834	1,311	562	5,245	22
Total	1,830,728	.....	1,613,908	132,432	35,904	806,236	216,820	15,123	3,103	87,084	12
Sugars, starches, etc.:											
Pudding sauce (145)	25,742	.....	25,742	515	4,659	19,306	.....	.....	.....	.....	.....
Sugar (146)	205,027	.....	205,027	.....	.....	205,027	.....	.....	.....	.....	.....
Total	230,769	.....	230,769	515	4,659	224,333	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (148)	57,834	.....	45,133	3,972	4,423	12,773	12,701	1,118	1,245	3,594	22
Beans, baked (147)	75,298	.....	70,762	6,156	5,095	18,186	4,536	395	327	1,166	6
Beets (157)	68,833	.....	64,751	1,166	65	6,864	4,082	73	4	433	6
Cabbage, boiled (165)	253,902	.....	232,583	4,419	698	15,350	21,319	405	64	1,406	8
Corn, stewed (177)	62,937	.....	62,937	1,762	755	10,385	.....	.....	.....	.....	.....
Eggplant (180)	39,237	.....	37,536	2,402	9,196	12,199	1,701	109	417	553	4
Potatoes, steamed (207)	409,261	13,041	353,128	6,709	353	52,969	43,092	819	43	6,463	11
Soup, bean (239)	533,773	.....	449,744	9,445	900	30,133	84,029	1,765	168	5,630	16
Soup, vegetable (250)	245,397	.....	214,099	1,285	.....	22,052	31,298	188	.....	3,223	13
Soup, vegetable (251)	255,943	.....	241,088	1,205	.....	9,643	14,855	74	.....	594	6
Slaw (236)	49,441	.....	36,174	579	108	2,026	13,267	212	40	743	27
Tomatoes, stewed (263)	63,616	.....	58,854	1,059	235	13,065	4,762	86	19	1,057	8
Tomatoes, stewed (264)	5,897	.....	4,536	82	18	1,302	1,361	25	5	391	2
Total	2,121,369	13,041	1,871,325	40,241	21,846	206,947	237,003	5,269	2,332	25,253	11
Fruits, etc.:											
Apples, baked (275)	197,769	.....	164,203	493	493	26,273	33,566	101	101	5,370	17
Jelly, apple (292)	86,637	6,577	73,370	220	.....	51,359	6,690	20	.....	4,683	8
Sauce, prune (287)	55,906	.....	51,370	360	.....	19,058	4,536	32	.....	1,683	8
Sauce, prune (288)	49,783	.....	42,525	340	.....	18,286	7,258	58	.....	3,121	15
Total	390,095	6,577	331,468	1,413	493	114,976	52,050	211	101	14,857	13
Total vegetable food	4,572,961	19,618	4,047,470	174,601	62,902	1,352,492	505,873	20,603	5,536	127,194	11
MISCELLANEOUS FOOD.											
Pudding, bread (353)	103,648	.....	97,524	2,536	2,243	21,553	6,124	159	141	1,353	6
Pudding, steamed (366)	49,896	.....	49,896	2,445	4,441	27,044	.....	.....	.....	.....	.....
Rhubarb pie (350)	122,245	10,206	112,039	3,137	12,997	30,250	.....	.....	.....	.....	.....
Stew, beef (315)	102,740	.....	82,215	8,304	6,988	6,659	20,525	2,073	1,745	1,662	20
Stew, beef (314)	94,122	.....	78,473	7,533	6,749	2,668	15,649	1,502	1,346	532	17
Stew, beef (313)	98,884	.....	92,534	9,068	8,050	7,403	6,350	622	552	508	6
Total	571,535	10,206	512,681	33,023	41,468	95,577	48,648	4,356	3,784	4,055	9
Total food	5,910,283	32,319	5,270,260	333,085	423,488	1,455,780	607,704	37,059	23,799	131,330	10

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 365.											
ANIMAL FOOD.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Beef:											
Dried, stewed (34)	2,041	.....	794	176	159	.....	1,247	277	249	.....	61
Liver (10)	4,763	1,361	3,005	859	688	859	397	114	91	114	8
Steak (25)	19,390	3,515	12,360	3,102	2,855	.....	3,515	882	812	.....	18
Corned (29)	12,475	5,330	5,217	1,633	2,734	.....	1,928	603	1,010	.....	15
Bologna (35)	5,103	1,021	3,742	700	659	11	340	64	60	1	7
Boiled (4)	6,577	1,361	4,479	1,380	1,689	.....	737	227	278	.....	11
Total	50,349	12,588	29,597	7,850	8,784	870	8,164	2,167	2,500	115	16
Pork:											
Ham, fried (53)	5,557	907	3,856	817	1,134	.....	794	168	233	.....	14
Pork, baked (45)	14,062	1,474	11,964	2,620	3,170	.....	624	137	165	.....	4
Gravy (64)	5,103	.....	5,103	46	1,812	270	.....	.....	.....	.....	.....
Gravy (65)	3,969	.....	3,629	40	1,038	167	340	4	97	16	9
Sausage (59)	7,485	2,779	4,593	753	2,255	55	113	19	55	1	2
Shoulder (56)	8,391	680	7,144	1,615	2,893	.....	567	128	230	.....	7
Bacon (51)	4,252	1,701	2,154	491	1,178	.....	397	91	217	.....	9
Chops (42)	10,206	.....	9,866	2,397	2,782	1,204	340	83	96	41	3
Total	59,025	7,541	48,309	8,779	16,262	1,696	3,175	630	1,093	58	5
Fish:											
Mackerel, salt (79)	7,144	.....	6,350	1,130	1,207	.....	794	141	151	.....	11
Cod, stuffed (70)	12,473	4,762	7,598	1,049	2,059	304	113	16	306	5	1
Cod, scalloped (69)	12,814	.....	5,046	999	91	409	7,768	1,538	140	629	61
Total	32,431	4,762	18,994	3,178	3,357	713	8,675	1,695	597	634	27
Eggs:											
Raw (83)	1,304	.....	1,304	171	121	.....	.....	.....	.....	.....	.....
Fried (86)	6,690	.....	5,613	763	1,106	.....	1,077	146	212	.....	16
Total	7,994	.....	6,917	934	1,227	.....	1,077	146	212	.....	13
Butter (88)	23,418	9,526	13,892	139	11,807	.....	.....	.....	.....	.....	.....
Cheese (89)	8,052	454	7,598	1,968	2,561	182	.....	.....	.....	.....	.....
Milk (91)	192,439	3,402	189,037	6,238	7,561	9,452	.....	.....	.....	.....	.....
Total animal food	373,708	38,273	314,344	29,086	51,559	12,913	21,091	4,638	4,402	807	6

VEGETABLE FOOD.											
Cereals:											
Bread (133)	160,971	58,854	81,818	7,527	1,064	43,445	20,299	1,868	264	10,779	13
Crackers (134)	2,154	227	1,927	189	175	1,409	.....	.....	.....	.....	.....
Wheat breakfast food (127)	38,330	.....	16,330	294	65	2,237	22,000	396	88	3,014	57
Wheat breakfast food (128)	12,474	.....	4,082	102	16	637	8,392	210	34	1,309	67
Cake, jelly (138)	5,443	.....	4,422	279	398	2,799	1,021	64	92	646	19
Corn bread (130)	10,773	.....	8,505	434	1,182	3,062	2,268	116	315	816	21
Oatmeal (112)	23,757	.....	15,592	452	234	1,871	8,165	237	122	980	34
Gingerbread (141)	3,742	.....	2,608	151	235	1,656	1,134	66	102	720	30
Cereal, mixed (95)	8,505	.....	6,691	154	40	790	1,814	42	11	214	21
Mush (97)	7,257	.....	3,742	49	15	554	3,515	46	14	520	48
Rice, boiled (123)	24,493	11,226	11,056	111	.....	1,050	2,211	22	.....	210	17
Total	297,899	70,307	156,773	9,742	3,424	59,510	70,819	3,067	1,042	19,208	24
Sugar (146)	65,885	8,505	57,380	.....	.....	57,380	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (152)	19,164	.....	10,319	805	815	2,394	8,845	690	699	2,052	46
Potatoes, fried (222)	40,258	.....	18,655	466	1,548	4,011	21,603	540	1,793	4,645	54
Potatoes, mashed and creamed (229)	27,897	3,856	13,665	369	492	2,733	10,376	280	374	2,075	37
Potatoes, boiled (211)	32,546	17,577	14,515	319	.....	2,743	454	10	.....	86	1
Potatoes, hashed (223)	7,030	1,134	4,649	121	.....	1,199	1,247	32	.....	322	18
Potato cakes (231)	9,072	.....	6,577	132	362	1,151	2,495	50	137	437	27
Tomatoes, stewed (267)	9,412	4,139	4,593	64	64	464	680	10	10	69	7
Peas (188)	10,546	7,938	2,608	89	44	303	.....	.....	.....	.....	.....
Cabbage, boiled (168)	53,865	.....	32,376	680	486	2,169	21,489	451	322	1,440	40
Corn, stewed (178)	34,133	9,072	20,071	582	763	4,215	4,990	145	190	1,048	15
Soup, vegetable (252)	33,794	.....	27,670	249	.....	1,826	6,124	55	.....	404	18
Sweet potatoes, baked (257)	15,422	.....	14,118	339	833	5,068	1,304	31	77	468	8
Beets, boiled (156)	7,995	.....	3,686	63	41	627	4,309	73	47	733	54
Total	301,134	43,716	173,502	4,278	5,448	28,903	83,916	2,367	3,649	13,779	28
Fruits, etc.:											
Apples (271)	17,351	3,856	13,495	40	40	1,457	.....	.....	.....	.....	.....
Apples, fried (277)	5,386	.....	4,479	188	36	1,165	907	38	7	236	17
Sauce, apple (301)	28,917	2,608	25,515	102	102	7,935	794	3	3	247	3
Grapes (281)	12,928	.....	9,639	96	116	1,388	3,289	33	39	474	25
Pears, stewed (285)	17,237	.....	17,237	69	69	4,016	.....	.....	.....	.....	.....
Total	81,819	6,464	70,365	495	363	15,961	4,990	74	49	957	6
Total vegetable food	746,737	128,992	458,020	14,515	9,235	161,754	159,725	5,508	4,740	33,944	21
MISCELLANEOUS FOOD.											
Gravy (329)	3,289	.....	3,289	46	273	181	.....	.....	.....	.....	.....
Pie, custard (346)	454	.....	454	19	29	118	.....	.....	.....	.....	.....
Pie, apple (344)	11,567	.....	11,567	220	775	3,354	.....	.....	.....	.....	.....
Pudding, cottage (359)	6,124	.....	5,217	350	579	3,130	907	61	101	544	15

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 365—Continued.											
MISCELLANEOUS FOOD—continued.											
	Grams.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Pudding, chocolate (355)	11,056	.....	5,783	168	335	1,423	5,273	153	306	1,297	48
Pudding, floating island (361)	13,381	.....	10,773	506	474	2,413	2,608	123	115	584	19
Custard, plain (336)	8,165	.....	5,840	327	292	975	2,325	130	116	388	28
Custard, chocolate (337)	13,041	.....	10,773	485	528	1,756	2,268	102	111	370	17
Sauce, pudding (370)	4,876	.....	4,876	44	229	683	.....	.....	.....	.....	.....
Sauce, pudding (371)	3,629	.....	3,175	159	121	518	454	23	17	74	13
Macaroni and tomato (334)	15,763	.....	12,361	433	62	2,373	3,402	119	17	655	22
Lemon ice (341)	5,557	.....	5,557	44	.....	4,579	.....	.....	.....	.....	.....
Hash cakes (308)	7,485	.....	3,289	414	332	339	4,196	529	424	432	56
Beef pie (311)	22,453	.....	17,123	1,387	3,699	2,842	5,330	432	1,151	885	24
Gravy, beef (330)	3,969	.....	3,969	.....	.....	44	.....	.....	.....	.....	.....
Stew, mutton (317)	14,969	.....	13,381	1,097	977	1,124	1,588	130	116	133	11
Total	145,778	.....	117,427	5,699	8,705	25,852	28,351	1,802	2,474	5,362	19
Total food	1,266,223	167,265	889,791	49,300	69,499	200,519	209,167	11,948	11,616	40,113	17
Dietary study No. 366.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Steak (26)	10,772	.....	8,618	2,137	2,370	.....	2,154	534	592	.....	20
Stewed (9)	4,536	.....	4,536	1,329	1,501	.....	.....	.....	.....	.....	.....
Roast (16)	7,257	.....	4,791	1,250	1,754	.....	2,466	644	908	.....	34
Dried, stewed (33)	3,969	.....	3,062	291	138	181	907	86	41	54	23
Veal roast (37)	3,629	.....	2,722	746	163	.....	907	249	54	.....	25
Total	30,163	.....	23,729	5,753	5,926	181	6,434	1,513	1,590	54	21
Pork:											
Ham (53)	2,836	.....	2,552	541	750	.....	284	60	83	.....	10
Bacon (52)	2,495	.....	2,041	445	1,161	.....	454	99	258	.....	18
Chops (42)	3,402	.....	1,616	393	456	197	1,786	434	504	218	53
Total	8,733	.....	6,209	1,379	2,367	197	2,524	593	845	218	29

Poultry:											
Chicken, stewed (67)	13,608	.....	6,492	786	740	.....	7,116	861	811	.....	52
Chicken, boiled (67)	511	.....	511	62	58	.....	.....	.....	.....	.....	.....
Total	14,119	.....	7,003	848	798	.....	7,116	861	811	.....	50
Fish:											
Mackerel, salt (81)	3,062	.....	2,268	476	587	.....	794	167	206	.....	26
Cod, salt (69)	3,856	.....	2,949	584	53	239	907	180	16	73	24
Cod, baked (68)	170	.....	170	22	.....	.....	.....	.....	.....	.....	.....
Total	7,088	.....	5,387	1,082	640	239	1,701	347	222	73	24
Eggs:											
Fried (86)	8,619	.....	8,392	1,141	1,653	.....	227	31	45	.....	3
Boiled (84)	10,631	.....	10,404	1,290	1,113	.....	227	28	24	.....	2
Scrambled (87)	8,874	.....	7,513	1,007	1,540	.....	1,361	182	279	.....	15
Total	28,124	.....	26,309	3,438	4,306	.....	1,815	241	348	.....	6
Butter (88)	14,062	.....	11,028	110	9,374	.....	3,034	30	2,579	.....	22
Milk and cream:											
Milk (91)	306,635	.....	282,725	9,330	11,309	14,137	23,900	789	956	1,195	8
Cream, evaporated (90)	681	.....	681	65	63	76	.....	.....	.....	.....	.....
Total	307,316	.....	283,416	9,395	11,372	14,213	23,900	789	956	1,195	8
Total animal food	409,605	.....	363,081	22,005	34,783	14,830	46,524	4,374	7,351	1,540	11
VEGETABLE FOOD.											
Cereals:											
Corn-meal mush (98)	5,556	.....	2,154	28	9	310	3,402	44	14	490	61
Hominy (94)	8,845	.....	6,407	128	58	1,217	2,438	49	22	463	28
Oatmeal (113)	34,785	.....	18,002	468	216	1,890	16,783	436	201	1,762	48
Rice, boiled (124)	27,329	.....	16,103	193	.....	1,948	11,226	135	.....	1,358	41
Bread (133)	98,715	7,996	49,924	4,593	649	26,510	40,795	3,753	530	21,662	45
Corn bread (132)	4,536	.....	2,580	152	284	978	1,956	115	215	741	43
Gingerbread (141)	1,588	.....	1,588	92	143	1,008	.....	.....	.....	.....	.....
Toast (136)	25,146	935	16,415	1,889	263	10,046	7,796	897	125	4,771	32
Cake (137)	2,949	.....	2,949	186	136	1,678	.....	.....	.....	.....	.....
Total	209,449	8,931	116,122	7,729	1,758	45,585	84,396	5,429	1,107	31,247	40
Vegetables:											
Beets, boiled (158)	8,504	.....	4,224	76	25	583	4,280	77	26	591	50
Corn, stewed (179)	9,526	.....	6,804	211	218	1,374	2,722	84	87	550	29
Peas, canned (189)	4,422	.....	1,927	75	19	225	2,495	97	25	292	56
Potatoes, mashed and creamed (230)	14,062	.....	11,113	278	322	1,945	2,949	74	86	516	21
Potatoes, boiled (207)	13,664	.....	6,520	124	7	978	7,144	136	7	1,072	52
Potatoes, baked (203)	9,922	.....	4,082	102	4	816	5,840	146	6	1,168	59
Sweet potatoes, baked (257)	8,165	.....	6,804	163	401	2,443	1,361	33	80	489	17

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 366—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Soup, bean (239)	15,139	.....	15,139	318	30	1,014	.....	.....	.....	.....	.....
Squash, boiled (254)	4,989	.....	2,608	50	18	318	2,381	45	17	290	48
Turnips, mashed (270)	4,762	.....	2,835	37	6	230	1,927	25	4	156	40
Tomatoes, stewed (268)	4,196	.....	1,247	20	17	157	2,949	47	41	372	70
Total	97,351	.....	63,303	1,454	1,067	10,083	34,048	764	379	5,496	36
Fruits, etc.:											
Apples, baked (276)	9,299	.....	5,217	16	21	955	4,082	12	16	747	44
Bananas, raw (280)	2,892	.....	2,580	34	15	568	312	4	2	69	11
Grapes (281)	9,525	1,814	7,711	77	93	1,110	.....	.....	.....	.....	.....
Prunes, stewed (291)	5,273	.....	3,572	29	.....	1,461	1,701	14	.....	696	32
Sauce, apple (302)	4,706	.....	4,054	16	16	1,127	652	3	3	181	14
Total	31,695	1,814	23,134	172	145	5,221	6,747	33	21	1,693	21
Total vegetable food	338,495	10,745	202,559	9,355	2,970	60,889	125,191	6,226	1,507	38,436	37
MISCELLANEOUS FOOD.											
Custard, plain (336)	8,477	.....	5,132	287	257	857	3,345	187	167	559	39
Hash (308)	8,505	.....	4,876	614	492	502	3,629	457	367	374	43
Jelly, lemon (342)	7,937	.....	6,463	200	.....	1,137	1,474	46	.....	259	19
Oysters, scalloped (322)	2,722	.....	2,268	172	313	755	454	34	63	151	17
Pudding, bread (353)	5,329	.....	4,422	115	102	977	907	24	21	200	17
Pudding, rice (364)	4,537	.....	3,856	147	127	625	681	26	22	110	15
Pie, squash (352)	3,629	.....	3,629	160	305	787	.....	.....	.....	.....	.....
Sauce, custard (338)	1,134	.....	1,134	56	48	180	.....	.....	.....	.....	.....
Soup, oyster (326)	6,237	.....	3,969	99	99	143	2,268	57	57	82	36
Stew, oyster (323)	907	.....	907	40	47	47	.....	.....	.....	.....	.....
Soup, clam (325)	7,824	.....	7,824	196	196	282	.....	.....	.....	.....	.....
Total	57,238	.....	44,480	2,086	1,986	6,292	12,758	831	697	1,735	22
Total food	805,338	10,745	610,120	33,446	39,739	82,011	184,473	11,431	9,555	41,711	23

Dietary study No. 367.

ANIMAL FOOD.											
Beef:											
Corned (31)	9,298	.....	5,556	1,633	1,228	.....	3,742	1,100	827	.....	40
Steak (26)	10,206	.....	7,711	1,912	2,121	.....	2,495	619	686	.....	24
Total	19,504	.....	13,267	3,545	3,349	.....	6,237	1,719	1,513	.....	32
Pork:											
Jowl (46)	10,886	.....	7,824	1,424	3,951	.....	3,062	557	1,546	.....	28
Roast (45)	7,937	.....	6,010	1,316	1,593	.....	1,927	422	511	.....	24
Sausage (62)	10,093	.....	9,469	1,903	5,236	152	624	125	345	10	6
Shoulder (56)	7,257	1,927	5,330	1,205	2,159	.....	.....	.....	.....	.....	.....
Total	36,173	1,927	28,633	5,848	12,939	152	5,613	1,104	2,402	10	16
Fish:											
Cod, baked (68)	13,154	.....	7,059	911	14	.....	6,095	786	12	.....	46
Mackerel, in salt (81)	7,938	.....	2,722	572	705	.....	5,216	1,095	1,351	.....	66
Total	21,092	.....	9,781	1,483	719	.....	11,311	1,881	1,363	.....	54
Eggs, boiled (84)	11,680	.....	11,680	1,448	1,250	.....	.....	.....	.....	.....	.....
Butter (88)	27,499	.....	24,522	245	20,844	.....	2,977	30	2,530	.....	11
Cheese (89)	3,289	.....	3,062	793	1,032	73	227	59	76	5	7
Cream, evaporated (90)	22,793	.....	22,680	2,177	2,109	2,540	113	11	11	13	.....
Total animal food	142,030	1,927	113,625	15,539	42,242	2,765	26,478	4,804	7,895	28	19
VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	286,051	25,855	212,029	19,507	2,756	112,587	48,167	4,431	626	25,577	17
Cake, plain (137)	7,030	.....	6,010	379	276	3,420	1,020	64	47	581	15
Gingerbread (141)	7,767	.....	5,613	326	505	3,564	2,154	125	194	1,368	28
Hominy (94)	33,567	.....	12,021	240	108	2,284	21,546	431	194	4,094	64
Mush (98)	15,309	.....	8,278	108	33	1,192	7,031	91	28	1,012	46
Oatmeal (113)	16,103	.....	8,392	218	101	881	7,711	200	93	810	48
Wheat breakfast food (127)	33,113	.....	18,938	341	76	2,595	14,175	255	57	1,942	43
Total	398,940	25,855	271,281	21,119	3,855	126,523	101,804	5,597	1,239	35,384	26
Sugars and starches:											
Molasses (144)	8,958	.....	8,958	.....	.....	6,271	.....	.....	.....	.....	.....
Sugar (146)	61,633	.....	61,633	.....	.....	61,633	.....	.....	.....	.....	.....
Total	70,591	.....	70,591	.....	.....	67,904	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (152)	38,216	.....	31,072	2,424	2,455	7,209	7,144	557	564	1,657	19
Beans, kidney, boiled (154)	13,722	.....	9,753	985	78	2,614	3,969	401	32	1,064	29
Beets, boiled (158)	14,061	.....	7,824	141	47	1,080	6,237	112	37	861	44

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 367—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Cabbage, boiled (166)	30,391	.....	20,979	399	84	1,385	9,412	179	38	621	31
Peas, canned (189)	13,041	.....	10,206	398	102	1,194	2,835	111	28	332	22
Pickles, cucumber (190)	6,576	.....	4,195	21	13	113	2,381	12	7	64	36
Potatoes, steamed (207)	59,421	16,556	33,680	640	34	5,052	9,185	175	9	1,378	15
Sweet potatoes, steamed (258)	79,719	10,546	56,813	795	341	12,442	12,360	173	74	2,707	16
Sweet potatoes, baked (256)	13,721	.....	11,794	271	71	3,373	1,927	44	12	551	14
Slaw (236)	9,185	.....	9,185	147	28	514	.....	.....	.....	.....	.....
Sauce, rhubarb (234)	16,046	.....	8,335	42	50	1,925	7,711	39	46	1,781	48
Soup, bean (239)	19,051	.....	19,051	400	38	1,276	.....	.....	.....	.....	.....
Total	313,150	27,102	222,887	6,663	3,341	38,177	63,161	1,803	847	11,016	20
Fruits, etc.:											
Apple butter (278)	22,339	3,062	10,319	52	.....	4,871	8,958	45	.....	4,228	40
Jelly, currant (293)	13,608	7,258	6,350	25	.....	4,064	.....	.....	.....	.....	.....
Sauce, apple (302)	15,649	.....	9,639	39	39	2,680	6,010	24	24	1,671	38
Prunes, stewed (291)	30,504	.....	18,824	151	.....	7,699	11,680	93	.....	4,777	38
Sauce, peach (307)	20,951	.....	8,449	161	34	2,687	12,502	238	50	3,976	59
Total	103,051	10,320	53,581	428	73	22,001	39,150	400	74	14,652	38
Total vegetable food	885,732	63,277	618,340	28,210	7,269	254,605	204,115	7,800	2,160	61,052	23
MISCELLANEOUS FOOD.											
Hash (308)	17,349	.....	13,267	1,672	1,340	1,367	4,082	514	412	420	24
Liver and bacon (310)	7,598	.....	5,897	1,521	2,371	47	1,701	439	684	14	22
Macaroni and tomatoes (334)	17,576	.....	11,226	393	56	2,155	6,350	222	32	1,219	36
Pie, apple (344)	18,598	.....	18,598	353	1,246	5,393	.....	.....	.....	.....	.....
Pie, squash (352)	13,013	.....	12,304	541	1,034	2,670	709	31	60	154	5
Pudding, steamed (367)	13,155	.....	10,433	449	574	5,790	2,722	117	150	1,511	21
Stew, beef (316)	36,628	.....	30,618	3,031	2,817	2,143	6,010	595	553	421	16
Total	123,917	.....	102,343	7,960	9,438	19,565	21,574	1,918	1,891	3,739	17
Total food	1,151,679	65,204	834,308	51,709	58,949	276,935	252,167	14,522	11,946	64,819	22

Dietary study No. 368.											
ANIMAL FOOD.											
Beef:											
Corned (31)	2,551	.....	1,531	450	340	.....	1,020	300	225	.....	40
Steak, fried (26)	2,608	.....	1,247	309	343	.....	1,361	338	374	.....	52
Total	5,159	.....	2,778	759	683	.....	2,381	638	599	.....	46
Pork:											
Jowl (46)	2,834	.....	1,927	351	973	.....	907	165	458	.....	32
Roast (45)	2,495	.....	1,701	373	451	.....	794	174	210	.....	32
Sausage (62)	2,154	.....	2,041	410	1,129	33	113	23	62	2	5
Shoulder (56)	1,474	.....	1,020	231	413	.....	454	103	184	.....	31
Total	8,957	.....	6,689	1,365	2,966	33	2,268	465	914	2	25
Fish:											
Mackerel, salt, boiled (81)	3,062	.....	1,474	310	382	.....	1,588	333	411	.....	52
Cod, baked (68)	4,309	.....	2,211	285	4	.....	2,098	271	4	.....	49
Total	7,371	.....	3,685	595	386	.....	3,686	604	415	.....	50
Butter (88)	7,371	.....	6,605	66	5,614	.....	766	8	651	.....	10
Cheese (89)	1,020	.....	935	242	315	22	85	22	29	2	8
Milk and cream:											
Milk (91)	25,686	.....	25,686	848	1,027	1,284	.....	.....	.....	.....	.....
Cream, evaporated (90)	2,721	.....	2,608	250	243	292	113	11	11	13	4
Total	28,407	.....	28,294	1,098	1,270	1,576	113	11	11	13	.....
Total animal food	58,285	.....	48,986	4,125	11,234	1,631	9,299	1,748	2,619	17	16
VEGETABLE FOOD.											
Cereals:											
Bread (133)	87,885	9,469	60,726	5,587	789	32,246	17,690	1,627	230	9,393	20
Oatmeal (113)	4,196	.....	2,608	68	31	274	1,588	41	19	167	38
Gingerbread (141)	2,211	.....	1,304	76	117	828	907	53	82	576	41
Mush (98)	4,252	.....	2,438	32	10	351	1,814	24	7	261	43
Hominy (94)	8,618	.....	3,969	79	36	754	4,649	93	42	883	54
Wheat breakfast food (127)	7,938	.....	5,103	92	20	699	2,835	51	11	388	36
Rice, boiled (124)	4,422	.....	2,041	24	.....	247	2,381	29	.....	288	54
Cake, plain (137)	1,927	.....	1,927	121	89	1,096	.....	.....	.....	.....	.....
Total	121,449	9,469	80,116	6,079	1,092	36,495	31,864	1,918	391	11,956	26
Sugar (146)	10,773	.....	10,773	.....	.....	10,773	.....	.....	.....	.....	.....
Vegetables:											
Cabbage, boiled (166)	8,959	.....	5,217	99	21	344	3,742	71	15	247	42
Sweet potatoes, steamed (258)	18,938	.....	13,778	193	83	3,017	5,160	72	31	1,130	27

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 368—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Sauce, rhubarb (234)	5,442	.....	2,154	11	13	498	3,288	16	20	760	60
Beans, kidney, boiled (154)	3,401	.....	1,474	149	12	395	1,927	195	15	516	57
Soup, bean (239)	8,618	.....	8,618	181	17	577	.....	.....	.....	.....	.....
Beans, baked (152)	9,753	.....	8,165	637	645	1,894	1,588	124	125	368	16
Potatoes, steamed (207)	14,855	.....	9,412	179	9	1,412	5,443	103	5	816	37
Pickles, cucumber (190)	2,154	.....	1,020	5	3	28	1,134	6	3	31	53
Beets, boiled (158)	3,855	.....	1,474	27	9	203	2,381	43	14	329	62
Cabbage slaw (236)	2,041	.....	1,474	24	4	83	567	9	2	32	28
Peas, canned (189)	2,154	.....	2,154	84	22	252	.....	.....	.....	.....	.....
Total	80,170	.....	54,940	1,589	838	8,703	25,230	639	230	4,229	31
Fruits, etc.:											
Prunes, stewed (291)	4,820	.....	2,552	20	.....	1,044	2,268	18	.....	928	47
Sauce, peach (307)	5,783	.....	2,608	50	10	829	3,175	60	13	1,010	55
Sauce, apple (302)	9,865	.....	6,350	25	25	1,765	3,515	14	14	977	36
Apple butter (278)	2,665	.....	1,077	5	.....	508	1,588	8	.....	750	60
Jelly, currant (293)	8,618	.....	3,515	14	.....	2,250	5,103	20	.....	3,266	59
Total	31,751	.....	16,102	114	35	6,396	15,649	120	27	6,931	49
Total vegetable food	244,143	9,469	161,931	7,782	1,965	62,367	72,743	2,677	648	23,116	30
MISCELLANEOUS FOOD.											
Hash (308)	4,763	.....	4,082	514	412	420	681	86	68	70	14
Stew, beef (316)	7,370	.....	6,350	629	584	445	1,020	101	94	71	14
Pudding, fruit (367)	2,268	.....	2,268	98	125	1,259	.....	.....	.....	.....	.....
Macaroni and tomato (334)	4,082	.....	3,062	107	15	588	1,020	36	5	196	25
Custard, plain (336)	681	.....	681	38	34	114	.....	.....	.....	.....	.....
Pie, apple (344)	4,252	.....	4,252	81	285	1,233	.....	.....	.....	.....	.....
Liver and bacon (310)	2,155	.....	1,474	380	593	12	681	176	274	5	32
Pie, squash (352)	3,373	.....	3,373	148	283	732	.....	.....	.....	.....	.....
Total	28,944	.....	25,542	1,995	2,331	4,803	3,402	399	441	342	12
Total food	331,372	9,469	236,459	13,902	15,530	68,801	85,444	4,824	3,708	23,475	26

Dietary study No. 369.

ANIMAL FOOD.											
Beef:											
Corned (28)	2,155	.....	567	130	98	.....	1,588	364	275	.....	74
Corned (31)	680	.....	567	167	126	.....	113	33	25	.....	17
Boiled (3)	3,062	.....	454	77	114	.....	2,608	441	657	.....	85
Dried, stewed (33)	2,439	.....	709	67	32	42	1,730	164	78	102	71
Roast (16)	3,061	.....	2,041	533	747	.....	1,020	266	373	.....	33
Roast (15)	5,897	2,552	1,871	428	449	.....	1,474	338	354	.....	25
Steak (26)	1,758	.....	1,191	295	328	.....	567	141	156	.....	32
Stewed (3)	4,025	.....	1,842	311	464	.....	2,183	369	550	.....	54
Total	23,077	2,552	9,242	2,008	2,358	42	11,283	2,116	2,468	102	49
Pork:											
Ham, fried (53)	2,835	.....	2,381	505	700	.....	454	96	134	.....	16
Sausage (62)	2,608	341	1,927	387	1,066	31	340	68	188	5	13
Shoulder (55)	7,370	4,423	1,020	174	275	.....	1,927	329	520	.....	26
Shoulder (56)	681	.....	454	103	184	.....	227	51	92	.....	33
Total	13,494	4,764	5,782	1,169	2,225	31	2,948	544	934	5	22
Fish:											
Cod, baked (68)	1,928	.....	1,134	146	2	.....	794	102	2	.....	41
Mackerel, salt (81)	1,588	.....	681	143	176	.....	907	191	235	.....	57
Total	3,516	.....	1,815	289	178	.....	1,701	293	237	.....	48
Butter (88)	6,350	226	5,245	53	4,458	.....	879	9	747	.....	14
Cheese (89)	851	.....	851	220	287	20	.....	.....	.....	.....	.....
Eggs, boiled (84)	681	.....	454	56	49	.....	227	28	24	.....	33
Milk (91)	15,253	.....	15,253	503	610	763	.....	.....	.....	.....	.....
Total animal food	63,222	7,542	38,642	4,298	10,165	856	17,038	2,990	4,410	107	27
VEGETABLE FOOD.											
Cereals:											
Bread (133)	43,659	4,592	25,886	2,382	337	13,746	13,181	1,213	171	6,999	30
Cake (137)	1,305	.....	851	54	39	484	454	29	21	258	35
Hominy (94)	6,237	.....	1,758	35	16	334	4,479	90	40	851	72
Oatmeal, boiled (113)	25,514	.....	7,739	201	93	813	17,775	462	213	1,867	70
Rice, boiled (124)	5,189	.....	369	4	.....	45	4,820	58	.....	583	93
Total	81,904	4,592	36,603	2,676	485	15,422	40,709	1,852	445	10,558	50
Sugar (146)	3,062	.....	3,062	.....	.....	3,062	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (152)	8,051	.....	1,814	142	143	421	6,237	487	493	1,447	77
Beets, boiled (158)	1,645	964	681	12	4	94	.....	.....	.....	.....	.....
Cabbage, boiled (166)	7,938	.....	3,317	63	13	219	4,621	88	19	305	58

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 369—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Celery (169)	680	.....	567	5	1	15	113	1	.....	3	17
Potatoes, baked (203)	10,263	2,296	2,779	70	3	556	5,188	130	5	1,038	51
Potatoes, boiled (213)	6,124	1,985	2,835	65	.....	550	1,304	30	.....	253	21
Potatoes, fried (222)	4,649	.....	3,487	87	289	750	1,162	29	97	250	25
Potatoes, mashed and creamed (230)	11,029	.....	7,995	200	232	1,399	3,034	76	88	531	28
Soup, bean (239)	4,990	.....	1,361	29	3	91	3,629	76	7	213	73
Soup, pea (241)	10,319	.....	6,577	237	46	499	3,742	135	26	284	36
Soup, tomato (245)	5,670	.....	2,835	8	14	136	2,835	9	14	136	50
Soup, vegetable (253)	2,608	.....	1,588	11	.....	95	1,020	7	.....	61	39
Slaw (236)	5,415	.....	2,381	38	7	133	3,034	48	9	170	56
Squash, boiled (254)	2,665	.....	681	13	5	83	1,984	37	14	242	74
Sweet potatoes, baked (256)	10,490	.....	5,585	129	33	1,597	4,905	113	29	1,403	47
Sweet potatoes (257)	3,233	.....	2,637	63	156	947	596	14	35	214	18
Turnips, mashed (269)	8,334	.....	4,139	62	8	377	4,195	63	8	382	50
Total	104,103	5,245	51,259	1,234	957	7,962	47,599	1,343	844	6,962	46
Fruits, etc.:											
Apples, baked (276)	2,326	.....	823	2	3	151	1,503	5	6	275	65
Sauce, apple (302)	5,499	.....	3,430	14	14	953	2,069	8	8	575	37
Prunes, stewed (291)	5,500	.....	1,758	14	.....	719	3,742	30	.....	1,531	68
Sauce, peach (307)	7,003	3,318	113	2	1	36	3,572	68	14	1,136	51
Sauce, cranberry (303)	3,913	.....	3,913	.....	.....	1,194	.....	.....	.....	.....	.....
Total	24,241	3,318	10,037	32	18	3,053	10,886	111	28	3,517	45
Total vegetable food	213,310	13,155	100,961	3,942	1,460	29,497	99,194	3,306	1,317	21,037	47
MISCELLANEOUS FOOD.											
Custard, baked (336)	3,856	.....	2,779	156	139	464	1,077	60	54	180	28
Liver and bacon (310)	1,928	.....	1,247	322	501	10	681	176	274	6	35
Pie, mince (348)	3,430	.....	3,430	199	422	1,307	.....	.....	.....	.....	.....
Pie, rhubarb (351)	2,381	.....	2,381	74	233	1,019	.....	.....	.....	.....	.....
Pudding, blanc-mange (357)	1,928	.....	567	17	4	192	1,361	41	10	461	71
Pudding, bread (353)	5,329	.....	1,814	47	42	401	3,515	91	81	777	66

Pudding, rice (364)	4,309	.....	3,062	116	101	496	1,247	47	41	202	97
Sauce for pudding (372)	1,361	.....	1,134	37	45	57	227	8	9	11	13
Soup, oyster (326)	4,990	.....	3,856	96	96	139	1,134	28	28	41	22
Total	29,512	.....	20,270	1,064	1,583	4,085	9,242	451	497	1,678	31
Total food	306,044	20,697	159,873	9,304	13,208	34,438	125,474	6,747	6,224	22,822	41
Dietary study No. 370.											
ANIMAL FOOD.											
Beef:											
Corned (28)	5,783	.....	5,783	1,324	1,001	.....	.....	.....	.....	.....	.....
Corned (31)	2,267	.....	1,247	367	277	.....	1,020	300	226	.....	45
Boiled (3)	6,917	5,103	1,814	307	457	.....	.....	.....	.....	.....	.....
Dried smoked, stewed (33)	4,111	.....	709	67	32	42	3,402	323	153	201	83
Roast (16)	6,010	2,607	2,722	710	996	.....	681	178	249	.....	11
Roast (15)	11,936	4,423	3,771	864	905	.....	3,742	857	898	.....	31
Steak (26)	3,204	.....	2,523	626	694	.....	681	169	187	.....	21
Stewed (3)	5,585	.....	3,175	537	800	.....	2,410	407	607	.....	43
Total	45,813	12,133	21,744	4,802	5,162	42	11,936	2,234	2,320	201	26
Pork:											
Ham, fried (53)	7,031	2,382	3,742	793	1,100	.....	907	192	267	.....	13
Sausage (62)	6,181	1,361	4,366	878	2,414	70	454	91	251	7	7
Shoulder (55)	16,387	6,691	8,222	1,406	2,220	.....	1,474	252	398	.....	9
Shoulder (56)	2,494	.....	1,474	333	597	.....	1,020	231	413	.....	41
Total	32,093	10,434	17,804	3,410	6,331	70	3,855	766	1,329	7	12
Fish:											
Cod, baked (68)	3,402	.....	2,041	263	4	.....	1,361	176	27	.....	40
Mackerel, salt (81)	3,628	.....	1,701	357	441	.....	1,927	405	499	.....	53
Total	7,030	.....	3,742	620	445	.....	3,288	581	526	.....	47
Eggs:											
Boiled (85)	3,402	.....	2,495	349	299	.....	907	127	109	.....	27
Fried (86)	907	.....	907	123	179	.....	.....	.....	.....	.....	.....
Total	4,309	.....	3,402	472	478	.....	907	127	109	.....	21
Butter (88)	17,690	.....	17,690	177	15,037	.....	.....	.....	.....	.....	.....
Cheese (89)	1,588	681	907	235	306	22	.....	.....	.....	.....	.....
Cream, evaporated (90)	4,082	680	3,402	327	316	381	.....	.....	.....	.....	.....
Milk (91)	57,523	.....	57,523	1,898	2,301	2,876	.....	.....	.....	.....	.....
Total animal food	170,128	23,928	126,214	11,941	30,376	3,391	19,986	3,708	4,284	208	12

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 370—Continued.											
VEGETABLE FOOD.											
Cereals:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Bread (133)	83,717	4,280	62,852	5,782	817	33,374	16,585	1,526	216	8,807	20
Crackers (134)	7,371	.....	7,371	722	671	5,388	.....	.....	.....	.....	.....
Cake (137)	1,588	.....	1,588	100	73	904	.....	.....	.....	.....	.....
Dressing, bread (142)	2,523	.....	1,474	136	19	783	1,049	97	14	557	41
Hominy (94)	11,284	.....	7,258	145	65	1,379	4,026	81	36	765	36
Oatmeal (113)	46,152	.....	32,092	834	385	3,370	14,060	366	169	1,476	30
Rice, boiled (124)	7,172	.....	5,698	68	.....	689	1,474	18	.....	178	21
Total	159,807	4,280	118,333	7,787	2,030	45,887	37,194	2,088	435	11,783	23
Sugar (146)	26,082	.....	26,082	.....	.....	26,082	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (152)	15,140	.....	4,337	338	343	1,006	10,803	843	853	2,506	71
Beets, boiled (158)	2,977	1,588	1,389	25	8	192	.....	.....	.....	.....	.....
Cabbage, boiled (166)	9,809	.....	5,330	101	21	352	4,479	85	18	296	46
Celery (169)	1,020	.....	907	8	1	24	113	1	.....	3	11
Potatoes, baked (203)	15,394	2,297	6,775	169	7	1,355	6,322	158	6	1,264	41
Potatoes, boiled (213)	10,432	.....	4,706	108	.....	913	5,726	132	.....	1,111	50
Potatoes, fried (222)	7,088	.....	6,407	160	532	1,378	681	17	57	146	10
Potatoes, mashed and creamed (230)	18,568	.....	15,053	376	437	2,634	3,515	88	102	615	19
Slaw (236)	9,808	.....	2,069	33	6	116	7,739	124	23	433	79
Squash, boiled (254)	4,337	.....	1,134	22	8	138	3,203	61	22	391	74
Soup, bean (239)	9,185	.....	9,185	193	18	615	.....	.....	.....	.....	.....
Soup, pea (241)	18,598	.....	14,742	531	103	1,120	3,856	139	27	293	21
Soup, tomato (245)	8,392	.....	8,392	25	42	403	.....	.....	.....	.....	.....
Soup, vegetable (253)	9,412	.....	7,711	54	.....	46	1,701	12	.....	102	18
Sweet potatoes, baked (256)	17,209	.....	9,696	223	58	2,773	7,513	173	45	2,149	44
Sweet potatoes, steamed and baked (257)	4,451	.....	4,451	107	263	1,598	.....	.....	.....	.....	.....
Turnips, mashed (269)	13,125	.....	10,999	165	22	1,001	2,126	32	4	194	16
Total	174,945	3,885	113,283	2,638	1,869	15,664	57,777	1,865	1,157	9,503	33
Fruits, etc.:											
Apples, baked (276)	4,678	.....	3,629	11	15	664	1,049	3	4	192	22
Prunes, stewed (291)	13,608	.....	5,897	47	.....	2 412	7,711	6	.....	3,154	57

Sauce, apple (302)	7,173	.....	5,274	21	21	1,466	1,899	8	8	528	26
Sauce, cranberry (303)	9,186	.....	8,392	.....	.....	2,560	794	.....	.....	242	9
Sauce, peach (307)	13,296	.....	4,082	78	16	1,298	9,214	175	37	2,930	69
Total	47,941	.....	27,274	157	52	8,400	20,667	192	49	7,046	43
Total vegetable food	408,775	8,165	284,972	10,582	3,951	96,033	115,638	4,145	1,641	28,332	28
MISCELLANEOUS FOOD.											
Custard, baked (336)	6,577	.....	6,577	368	329	1,098	.....	.....	.....	.....	.....
Liver and bacon (310)	4,195	.....	2,381	614	957	19	1,814	468	729	15	43
Pie, mince (348)	4,252	.....	4,252	247	523	1,620	.....	.....	.....	.....	.....
Pie, rhubarb (351)	5,103	.....	5,103	158	500	2,184	.....	.....	.....	.....	.....
Pudding, bread (353)	8,051	.....	4,649	121	107	1,027	3,402	88	78	752	42
Pudding, blanc mange (357)	7,257	.....	6,690	201	47	2,268	567	17	4	192	8
Pudding, rice (364)	4,876	.....	4,876	185	161	790	.....	.....	.....	.....	.....
Soup, oyster (326)	9,639	.....	8,165	204	204	294	1,474	37	37	53	15
Total	49,950	.....	42,693	2,098	2,828	9,300	7,257	610	848	1,012	15
Total food	628,853	32,093	453,879	24,621	37,155	108,724	142,881	8,463	6,773	29,552	23
Dietary study No. 371.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Roast (15)	20,752	1,588	9,865	2,259	2,368	.....	9,299	2,129	2,232	.....	45
Boiled (9)	3,856	454	2,495	731	825	.....	907	266	300	.....	24
Beefsteak (26)	28,123	1,361	16,443	4,077	4,522	.....	10,319	2,559	2,837	.....	37
Dried, stewed (33)	9,526	.....	5,387	512	242	318	4,139	393	186	244	43
Lamb, roast, leg (38)	10,546	.....	5,103	1,179	1,005	.....	5,443	1,257	1,072	.....	52
Veal cutlets (36)	7,258	.....	4,763	1,272	800	.....	2,495	666	419	.....	34
Total	80,061	3,403	44,056	10,030	9,762	318	32,602	7,270	7,046	244	41
Fish:											
Halibut, boiled (71)	11,907	.....	7,144	1,621	450	.....	4,763	1,081	300	.....	40
Mackerel, salt (81)	5,329	.....	4,309	905	1,116	.....	1,020	214	264	.....	19
Salmon, canned (82)	6,804	.....	4,479	976	542	.....	2,325	507	281	.....	34
Total	24,040	.....	15,932	3,502	2,108	.....	8,108	1,802	845	.....	34
Poultry:											
Chicken, fricasseed (66)	15,422	.....	10,093	1,080	939	293	5,329	570	496	155	35
Chicken, stewed (67)	15,422	.....	10,319	1,249	1,176	.....	5,103	617	582	.....	33
Total	30,844	.....	20,412	2,329	2,115	293	10,432	1,187	1,078	155	34

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 371—Continued.											
ANIMAL FOOD—continued.											
Eggs:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Raw (83)	39,407	.....	38,613	5,058	3,591	.....	794	104	74	.....	2
Scrambled (87)	7,257	.....	6,917	927	1,418	.....	340	46	70	.....	5
Total	46,664	.....	45,530	5,985	5,009	.....	1,134	150	144	.....	2
Butter (88)	17,010	1,020	15,990	160	13,592	.....	.....	.....	.....	.....	.....
Milk (91)	912,756	14,515	823,737	27,183	32,949	41,187	74,504	2,459	2,980	3,725	8
Total animal food	1,111,375	18,938	965,657	49,189	65,535	41,798	126,780	12,868	12,093	4,124	11
VEGETABLE FOOD.											
Cereals:											
Bread (133)	148,101	3,742	61,917	5,696	805	32,877	82,442	7,585	1,072	43,777	56
Wheat breakfast food (126)	11,907	.....	9,412	132	9	809	2,495	35	2	215	21
Shredded wheat (125)	2,721	.....	1,247	132	17	971	1,474	154	21	1,148	54
Corn bread (132)	22,226	.....	22,226	1,311	2,445	8,424	.....	.....	.....	.....	.....
Mush (98)	12,701	.....	7,031	91	28	1,012	5,670	74	23	816	45
Oatmeal (113)	69,967	.....	56,700	1,474	680	5,954	13,267	345	159	1,393	19
Rice, boiled (124)	78,927	.....	53,411	641	.....	6,462	25,516	306	.....	3,087	32
Toast, dry (136)	62,654	.....	50,605	5,820	810	30,970	12,049	1,385	193	7,374	19
Crackers (134)	8,618	.....	4,876	478	444	3,564	3,742	367	340	2,735	43
Cake (137)	6,010	.....	5,443	343	250	3,097	567	36	26	323	9
Total	423,832	3,742	272,868	16,118	5,488	94,140	147,222	10,287	1,836	60,868	35
Sugar (146)	43,772	.....	43,772	.....	.....	43,772	.....	.....	.....	.....	.....
Vegetables:											
Potatoes, mashed and creamed (230)	40,711	.....	30,335	758	880	5,309	10,376	259	301	1,816	25
Potatoes, baked (203)	84,144	.....	60,556	1,514	61	12,111	23,588	590	24	4,718	28
Potatoes, browned (217)	27,216	.....	20,072	502	20	4,175	7,144	179	7	1,486	26
Sweet potatoes, boiled and browned (261)	16,103	.....	13,381	294	575	4,643	2,722	60	117	945	47
Sweet-potato roll (262)	10,092	.....	6,804	122	306	1,952	3,288	59	148	944	33
Soup, tomato (245)	85,729	.....	54,545	164	273	2,618	31,184	94	156	1,497	36
Soup, potato (242)	43,545	.....	22,680	340	476	1,089	20,865	313	438	1,002	48
Soup, vegetable (253)	81,762	.....	49,216	345	.....	2,953	32,546	228	.....	1,953	40
Soup, corn (240)	41,958	.....	30,505	397	671	854	11,453	149	252	321	27

Celery (171)	1,361	.....	1,361	15	1	45	.....	.....	.....	.....	.....
Parsnips, boiled and browned (186)	7,145	.....	6,634	133	438	1,094	511	10	34	84	7
Tomatoes, stewed (268)	8,391	.....	6,350	102	89	800	2,041	33	29	257	24
Corn (179)	11,566	.....	7,484	232	239	1,511	4,082	127	131	825	35
Peas (189)	6,918	.....	4,536	177	45	531	2,382	93	24	279	34
Total	466,641	.....	314,459	5,095	4,074	39,685	152,182	2,194	1,661	16,127	33
Fruits, etc.:											
Apples (271)	5,783	.....	5,783	17	17	624	.....	.....	.....	.....	.....
Apples, baked (276)	9,865	.....	8,618	26	35	1,577	1,247	4	5	228	13
Sauce, apple (302)	26,763	.....	23,304	93	93	6,479	3,459	13	13	962	13
Bananas (279)	12,928	.....	12,928	103	52	1,849	.....	.....	.....	.....	.....
Jelly (292)	3,856	.....	3,856	12	.....	2,699	.....	.....	.....	.....	.....
Oranges (282)	6,350	.....	6,350	38	6	540	.....	.....	.....	.....	.....
Sauce, peach (307)	14,743	.....	11,964	227	48	3,805	2,779	53	11	884	19
Prunes, stewed (291)	9,638	.....	8,731	70	.....	3,571	907	7	.....	371	9
Total	89,926	.....	81,534	586	251	21,144	8,392	77	29	2,445	9
Total vegetable food	1,024,171	3,742	712,633	21,799	9,813	198,741	307,796	12,558	3,526	79,440	30
MISCELLANEOUS FOOD.											
Stew, beef (316)	19,278	.....	11,113	1,100	1,022	778	8,165	808	751	572	42
Ice cream (340)	15,650	.....	14,743	575	590	3,111	907	35	36	190	6
Chicken, creamed (319)	11,681	.....	8,902	623	561	276	2,779	195	175	86	24
Sauce, custard (338)	8,959	.....	8,959	439	376	1,424	.....	.....	.....	.....	.....
Liver and bacon (310)	4,537	.....	3,856	995	1,550	31	681	175	273	5	15
Jelly, lemon (342)	13,154	.....	10,432	323	.....	1,836	2,722	84	.....	479	21
Macaroni and cheese (333)	9,072	.....	3,799	281	243	631	5,273	390	337	875	58
Oysters, creamed (321)	8,959	.....	7,371	346	479	464	1,588	75	103	100	18
Stew, oyster (324)	20,298	.....	17,917	788	932	932	2,381	105	124	124	12
Soup, oyster (326)	41,958	.....	25,175	629	629	906	16,783	420	420	604	40
Pudding, bread (353)	11,453	.....	10,319	268	237	2,280	1,134	29	26	251	10
Pudding, chocolate (356)	11,567	.....	9,412	292	508	2,165	2,155	67	116	496	19
Pudding, floating island (362)	11,340	.....	9,639	453	434	1,841	1,701	80	77	325	15
Pudding, junket (363)	15,309	.....	12,587	327	365	1,548	2,722	71	80	335	18
Pudding, rice (364)	13,381	.....	9,979	379	329	1,616	3,402	129	112	551	25
Sauce, halibut (328)	4,538	.....	2,723	117	261	144	1,815	78	174	96	40
Sauce, lemon (369)	5,217	.....	4,763	100	76	905	454	10	7	86	9
Total	226,351	.....	171,689	8,035	8,592	20,888	54,662	2,751	2,811	5,175	24
Total food	2,361,897	22,680	1,849,979	79,023	83,940	261,427	489,238	28,177	18,430	88,739	21

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 372.											
ANIMAL FOOD.											
Beef:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Boiled (3)	5,783	.....	5,783	977	1,457	.....	.....	.....	.....	.....	.....
Corned (31)	11,794	.....	9,526	2,801	2,115	.....	2,268	667	503	.....	19
Steak (26)	11,454	.....	9,866	2,447	2,713	.....	1,588	394	437	.....	14
Boiled (9)	907	.....	907	266	300	.....	.....	.....	.....	.....	.....
Roast (15)	3,402	.....	3,402	779	816	.....	.....	.....	.....	.....	.....
Total	33,340	.....	29,484	7,270	7,401	.....	3,856	1,061	940	.....	12
Pork:											
Sausage (62)	6,350	.....	6,350	1,276	3,513	102	.....	.....	.....	.....	.....
Shoulder, smoked (57)	12,020	.....	9,412	1,920	2,551	.....	2,608	532	707	.....	22
Pigs' feet (43)	3,062	.....	3,062	168	279	.....	.....	.....	.....	.....	.....
Chops (45)	2,495	.....	2,495	546	661	.....	.....	.....	.....	.....	.....
Roast (47)	3,629	.....	3,629	1,002	784	.....	.....	.....	.....	.....	.....
Head (46)	8,505	.....	8,505	1,548	4,295	.....	.....	.....	.....	.....	.....
Shoulder, fresh (45)	10,207	.....	9,753	2,136	2,585	.....	454	99	120	.....	4
Head-cheese (44)	1,134	.....	1,134	221	383	.....	.....	.....	.....	.....	.....
Ham, fried (53)	3,515	.....	3,515	745	1,033	.....	.....	.....	.....	.....	.....
Total	50,917	.....	47,855	9,562	16,084	102	3,062	631	827	.....	60
Fish:											
Herring, smoked (76)	454	.....	454	93	40	.....	.....	.....	.....	.....	.....
Cod, salt, boiled (75)	6,577	.....	3,175	914	13	.....	3,402	980	14	.....	52
Mackerel, salt (80)	1,588	.....	227	60	64	.....	1,361	357	381	.....	86
Cod, baked (68)	10,773	.....	7,144	922	14	.....	3,629	469	7	.....	34
Total	19,392	.....	11,000	1,989	131	.....	8,392	1,806	402	.....	43
Butter (88)	19,278	.....	12,077	121	10,265	.....	7,201	72	6,121	.....	37
Milk (91)	21,773	.....	21,773	719	871	1,089	.....	.....	.....	.....	.....
Total animal food	144,700	.....	122,189	19,661	34,752	1,191	22,511	3,570	8,290	.....	16

VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	222,831	.....	155,235	14,283	2,018	82,435	67,586	6,218	879	35,888	30
Crackers (134)	7,257	.....	7,144	700	650	5,222	113	11	10	83	2
Hominy (94)	20,298	.....	14,855	297	134	2,822	5,443	109	49	1,031	27
Oatmeal (113)	17,577	.....	11,113	289	133	1,167	6,464	168	78	679	37
Rice (124)	17,350	.....	9,412	113	.....	1,139	7,938	95	.....	961	46
Doughnuts (140)	6,464	.....	6,464	433	1,357	3,434	.....	.....	.....	.....	.....
Wheat breakfast food (127)	10,773	.....	5,556	100	22	761	5,217	94	21	715	48
Fritters (135)	1,021	.....	1,021	94	13	542	.....	.....	.....	.....	.....
Ginger cake (141)	14,969	.....	12,474	723	1,123	7,921	2,495	145	225	1,584	11
Mush (98)	11,567	.....	6,804	88	27	980	4,763	62	19	686	47
Macaroni, boiled (143)	11,112	.....	4,422	146	93	699	6,690	221	140	1,057	60
Corn bread (132)	1,588	.....	1,361	80	150	516	227	13	25	86	14
Wheat breakfast food (128)	9,638	.....	5,443	136	22	849	4,195	105	17	654	44
Cake (137)	6,577	.....	6,577	414	303	3,742	.....	.....	.....	.....	.....
Total	359,022	.....	247,891	17,896	6,045	112,229	111,131	7,241	1,463	43,427	31
Sugar (146)	12,474	.....	12,474	.....	.....	12,474	.....	.....	.....	.....	.....
Vegetables:											
Potatoes, steamed (207)	29,484	.....	19,618	373	20	2,942	9,866	187	10	1,480	33
Potatoes, steamed (210)	11,226	.....	6,804	163	.....	1,367	4,422	106	.....	889	39
Potatoes, baked (203)	4,763	.....	4,763	119	5	953	.....	.....	.....	.....	.....
Potatoes, browned (217)	6,010	.....	5,783	145	6	1,203	227	6	.....	47	4
Potatoes, stewed (230)	2,608	.....	2,608	65	76	456	.....	.....	.....	.....	.....
Potatoes, fried (222)	2,721	.....	1,814	45	151	390	907	23	75	195	33
Potatoes, mashed and creamed (230)	5,330	.....	5,330	133	155	933	.....	.....	.....	.....	.....
Cabbage, boiled (166)	15,083	.....	12,134	231	49	801	2,949	56	12	195	20
Soup, bean (239)	107,389	.....	59,648	1,253	119	3,996	47,741	1,003	95	3,199	44
Soup, tomato (245)	7,031	.....	1,814	5	9	87	5,217	16	26	250	74
Soup, vegetable (253)	44,226	.....	27,216	191	.....	1,633	17,010	119	.....	1,021	38
Sauce, rhubarb (234)	26,875	.....	17,917	90	108	4,139	8,958	45	51	2,069	33
Beans, Lima, boiled (155)	8,164	.....	4,876	273	24	1,004	3,288	184	16	677	40
Beans, baked (152)	10,886	.....	7,371	575	582	1,710	3,515	274	278	816	32
Beans, baked (151)	8,392	.....	6,804	606	401	1,796	1,588	141	94	419	19
Peas, stewed (189)	5,556	.....	5,556	217	56	650	.....	.....	.....	.....	.....
Salad, celery (171)	907	.....	907	10	1	30	.....	.....	.....	.....	.....
Turnips, mashed (269)	12,814	.....	11,680	175	23	1,063	1,134	17	2	103	9
Succotash (255)	8,165	.....	7,031	295	148	1,378	1,134	48	24	222	14
Pickles, cucumber (190)	2,155	.....	2,155	11	6	58	.....	.....	.....	.....	.....
Tomato preserves (265)	1,361	.....	1,361	24	5	347	.....	.....	.....	.....	.....
Tomatoes, stewed (268)	8,846	.....	7,258	116	102	915	1,588	25	22	200	18
Total	329,992	.....	220,448	5,115	2,046	27,851	109,544	2,250	708	11,782	33
Fruits, etc.:											
Sauce, apple, evaporated (300)	30,051	.....	24,268	97	121	7,353	5,783	23	29	1,752	19
Prunes, stewed (291)	11,793	.....	10,886	87	.....	4,452	907	7	.....	371	8
Total	41,844	.....	35,154	184	121	11,805	6,690	30	29	2,123	16
Total vegetable food	743,332	.....	515,967	23,195	8,212	164,359	227,365	9,521	2,200	57,332	31

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 372—Continued.											
MISCELLANEOUS FOOD.											
	Grams.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Dumplings, apple (339)	2,381	.....	2,381	74	233	1,019	.....	.....	.....	.....	.....
Stew, beef (316)	31,071	.....	25,061	2,481	2,306	1,754	6,010	595	553	421	19
Pudding, bread (353)	5,671	.....	5,217	136	120	1,153	454	12	10	100	8
Stew, pork (316)	14,968	.....	11,680	1,156	1,075	818	3,288	326	302	230	22
Liver and bacon (310)	5,897	.....	5,897	1,521	2,371	47	.....	.....	.....	.....	.....
Pudding, tapioca (368)	2,949	.....	2,949	97	94	832	.....	.....	.....	.....	.....
Pudding, rice (364)	2,949	.....	2,949	112	97	478	.....	.....	.....	.....	.....
Pudding, steamed (366)	7,598	.....	7,598	372	676	4,118	.....	.....	.....	.....	.....
Pudding, cornstarch (357)	2,381	.....	2,381	71	17	807	.....	.....	.....	.....	.....
Codfish cakes (318)	1,474	.....	1,474	286	144	225	.....	.....	.....	.....	.....
Pie, apple, evaporated (344)	13,608	.....	13,608	259	912	3,946	.....	.....	.....	.....	.....
Total	90,947	.....	81,195	6,565	8,045	15,197	9,752	933	865	751	11
Total food	978,979	.....	719,351	49,421	51,009	180,747	259,628	14,024	11,355	58,083	27
Dietary study No. 373.											
ANIMAL FOOD.											
Beef and mutton:											
Boiled (9)	9,298	.....	6,917	2,027	2,290	.....	2,381	698	788	.....	26
Chipped, fried (32)	680	.....	680	204	44	.....	.....	.....	.....	.....	.....
Corned (31)	13,722	.....	10,093	2,967	2,241	.....	3,629	1,067	806	.....	26
Roast (14)	8,845	.....	8,845	1,831	1,928	.....	.....	.....	.....	.....	.....
Roast (17)	7,371	.....	5,897	1,403	1,474	.....	1,474	351	369	.....	20
Sausage, Bologna (35)	794	.....	794	148	140	2	.....	.....	.....	.....	.....
Steak, fried (26)	15,876	.....	14,855	3,684	4,085	.....	1,021	253	281	.....	6
Mutton, chops (39)	2,495	.....	2,155	397	575	.....	340	63	91	.....	14
Mutton, roast (38)	2,722	.....	2,722	629	536	.....	.....	.....	.....	.....	.....
Total	61,803	.....	52,958	13,290	13,313	2	8,845	2,432	2,335	.....	14
Pork:											
Boiled (41)	2,041	.....	2,041	320	741	.....	.....	.....	.....	.....	.....
Ham, fried (53)	3,175	.....	3,175	673	933	.....	.....	.....	.....	.....	.....
Head-cheese (44)	1,247	.....	1,247	243	421	.....	.....	.....	.....	.....	.....
Sausage, fried (62)	6,577	.....	6,350	1,276	3,512	102	227	46	126	4	3

Shoulder (56)	907	.....	907	205	367	.....	.....	.....	.....	.....	.....
Shoulder (55)	10,773	.....	7,938	1,357	2,143	.....	2,835	485	765	.....	26
Total	24,720	.....	21,658	4,074	8,117	102	3,062	531	891	4	12
Fish:											
Haddock, baked (72)	12,361	.....	10,773	970	1,271	205	1,588	143	187	30	13
Mackerel, salt (80)	9,752	.....	7,938	2,080	2,223	.....	1,814	475	508	.....	19
Total	22,113	.....	18,711	3,050	3,494	205	3,402	618	695	30	15
Butter (88)	21,092	.....	17,350	174	14,748	.....	3,742	37	3,181	.....	18
Milk (91)	38,102	.....	38,102	1,257	1,524	1,905	.....	.....	.....	.....	.....
Total animal food	167,830	.....	148,779	21,845	41,196	2,214	19,051	3,618	7,102	34	11
VEGETABLE FOOD.											
Cereals:											
Bread, biscuits, etc. (133)	280,665	.....	228,841	21,053	2,975	121,515	51,824	4,768	674	27,519	18
Cake, plain (137)	10,886	.....	10,886	686	501	6,194	.....	.....	.....	.....	.....
Cornbread (132)	2,268	.....	2,268	134	249	860	.....	.....	.....	.....	.....
Crackers, soda (134)	10,432	.....	10,432	1,022	949	7,626	.....	.....	.....	.....	.....
Doughnuts (140)	10,660	.....	10,660	714	2,239	5,660	.....	.....	.....	.....	.....
Gingerbread (141)	22,567	.....	21,773	1,263	1,960	13,826	794	46	71	504	4
Hominy (94)	21,773	.....	17,350	347	156	3,297	4,423	88	40	840	20
Mush, fried (98)	14,175	.....	10,546	137	42	1,519	3,629	47	15	523	26
Oatmeal (113)	18,711	.....	12,020	313	144	1,262	6,691	174	80	703	36
Rice, boiled (124)	28,577	.....	16,783	201	.....	2,031	11,794	142	.....	1,427	41
Wheat breakfast food (128)	12,474	.....	7,144	179	29	1,114	5,330	133	21	831	43
Wheat breakfast food (127)	16,443	.....	9,866	178	39	1,352	6,577	118	26	901	40
Total	449,631	.....	358,569	26,227	9,283	166,256	91,062	5,516	927	33,248	20
Sugar (146)	8,278	.....	8,278	.....	.....	8,278	.....	.....	.....	.....	.....
Vegetables:											
Beans, kidney, boiled (154)	9,866	.....	7,938	802	64	2,127	1,928	195	15	517	20
Beans, Lima, boiled (155)	13,607	.....	12,700	711	64	2,616	907	51	5	187	7
Beans, baked (152)	21,773	.....	19,618	1,530	1,550	4,551	2,155	168	170	500	10
Cabbage, boiled (166)	9,979	.....	8,165	155	33	539	1,814	34	7	120	18
Corn, stewed (179)	3,402	.....	3,062	95	98	619	340	11	11	69	10
Parsnips, boiled and browned (186)	1,928	.....	1,928	39	127	318	.....	.....	.....	.....	.....
Pickles, cucumber (190)	1,134	.....	1,134	6	3	31	.....	.....	.....	.....	.....
Peas, stewed (189)	3,515	.....	3,515	137	35	411	.....	.....	.....	.....	.....
Potatoes, baked (203)	3,629	.....	3,629	91	4	726	.....	.....	.....	.....	.....
Potatoes, fried (222)	3,515	.....	2,948	74	245	634	567	14	47	122	16
Potatoes, mashed and creamed (230)	9,979	.....	8,165	204	237	1,429	1,814	45	53	317	18
Potatoes, boiled (213)	1,361	.....	1,361	31	.....	264	.....	.....	.....	.....	.....
Potatoes, steamed (210)	32,773	.....	27,103	650	.....	5,448	5,670	136	.....	1,140	17
Potatoes, steamed and browned (217)	7,258	.....	7,031	176	7	1,462	227	6	.....	47	3
Sauerkraut (235)	3,062	.....	3,062	52	15	116	.....	.....	.....	.....	.....
Sauce, rhubarb (234)	8,618	.....	7,371	37	44	1,703	1,247	6	7	288	14

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 373—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Soup, bean (239)	103,534	.....	82,555	1,734	165	5,531	20,979	441	42	1,406	20
Soup, tomato (245)	45,926	.....	41,844	126	209	2,009	4,082	12	20	196	9
Soup, vegetable (253)	17,122	.....	13,040	91	.....	782	4,082	29	.....	245	24
Sweet potatoes, baked (256)	2,381	.....	2,381	55	14	681	.....	.....	.....	.....	.....
Tomatoes, stewed (268)	12,360	.....	9,979	160	140	1,257	2,381	38	33	300	19
Tomatoes, preserved (265)	2,381	.....	2,381	43	10	607	.....	.....	.....	.....	.....
Turnips, mashed (269)	30,164	.....	23,927	359	48	2,177	6,237	94	12	568	21
Total	349,267	.....	294,837	7,358	3,112	36,038	54,430	1,280	422	6,022	13
Fruits, etc.:											
Apples, baked (276)	1,814	.....	1,814	5	7	332	.....	.....	.....	.....	.....
Jelly, apple (292)	6,804	.....	5,330	16	.....	3,731	1,474	4	.....	1,031	22
Prunes, stewed (291)	38,103	.....	36,515	292	.....	14,935	1,588	13	.....	649	4
Sauce, apple (300)	21,205	.....	18,597	74	93	5,635	2,608	10	13	790	12
Total	67,926	.....	62,256	387	100	24,633	5,670	27	13	2,470	8
Total vegetable food	875,102	.....	723,940	33,972	12,495	235,205	151,162	6,823	1,362	41,740	17
MISCELLANEOUS FOOD.											
Beef stew (316)	58,741	.....	45,246	4,479	4,163	3,167	13,495	1,336	1,242	945	23
Gravy, beef (329)	2,268	.....	2,268	32	188	125	.....	.....	.....	.....	.....
Hash, baked (308)	5,897	.....	5,897	743	596	607	.....	.....	.....	.....	.....
Liver and bacon (310)	9,866	.....	9,299	2,399	3,738	74	567	146	228	5	6
Macaroni and tomatoes (334)	9,526	.....	8,165	286	41	1,568	1,361	48	7	261	14
Pie, green apple (344)	15,422	.....	15,422	293	1,033	4,472	.....	.....	.....	.....	.....
Pudding, bread (353)	15,762	.....	13,948	363	321	3,083	1,814	47	42	401	12
Pudding, cornstarch (357)	2,722	.....	2,722	82	19	923	.....	.....	.....	.....	.....
Pudding, rice (365)	2,722	.....	2,722	112	93	618	.....	.....	.....	.....	.....
Pudding, steamed (367)	5,443	.....	5,330	229	293	2,958	113	5	6	63	2
Sauce for pudding (370)	5,896	.....	5,783	52	272	810	113	1	5	16	2
Total	134,265	.....	116,802	9,070	10,757	18,405	17,463	1,583	1,530	1,691	13
Total food	1,177,197	.....	989,521	64,887	64,448	255,824	187,676	12,024	9,994	43,465	16

Dietary study No. 374.

ANIMAL FOOD.											
Beef and mutton:											
Steak (26)	16,896	.....	16,896	4,190	4,646	.....	.....	.....	.....	.....	.....
Roast (17)	9,525	.....	8,618	2,051	2,154	.....	907	216	227	.....	9
Boiled (8)	19,505	.....	17,237	4,637	3,275	.....	2,268	610	431	.....	12
Roast (14)	24,268	.....	22,907	4,742	4,994	.....	1,361	282	297	.....	6
Corned (31)	18,597	.....	17,690	5,201	3,927	.....	907	267	201	.....	5
Chops, mutton (39)	9,526	.....	9,526	1,753	2,543	.....	.....	.....	.....	.....	.....
Total	98,317	.....	92,874	22,574	21,539	.....	5,443	1,375	1,156	.....	6
Pork:											
Ham, fried (53)	5,443	.....	5,443	1,154	1,600	.....	.....	.....	.....	.....	.....
Sausage, fried (61)	13,494	.....	13,267	3,264	7,973	279	227	56	136	5	2
Shoulder (57)	32,319	.....	27,783	5,668	7,529	.....	4,536	925	1,229	.....	14
Chops (42)	9,072	.....	9,072	2,204	2,558	1,107	.....	.....	.....	.....	.....
Head-cheese (44)	4,763	.....	4,763	929	1,610	.....	.....	.....	.....	.....	.....
Total	65,091	.....	60,328	13,219	21,270	1,386	4,763	981	1,365	5	7
Fish:											
Cod, salt, boiled (75)	22,113	4,309	10,660	3,070	43	.....	7,144	2,057	28	.....	32
Haddock, baked (72)	19,618	.....	19,164	1,725	2,261	364	454	41	54	9	2
Total	41,731	4,309	29,824	4,795	2,304	364	7,598	2,098	82	9	18
Butter (88)	28,576	.....	24,494	245	20,820	.....	4,082	41	3,470	.....	14
Total animal food	233,715	4,309	207,520	40,833	65,933	1,750	21,886	4,495	6,073	14	9
VEGETABLE FOOD.											
Cereals:											
Bread (133)	475,939	.....	416,064	38,278	5,409	220,930	59,875	5,509	778	31,794	12
Rice, boiled (124)	65,545	.....	55,226	663	.....	6,682	10,319	124	.....	1,249	16
Hominy, fried (94)	51,143	.....	44,793	896	404	8,511	6,350	127	57	1,206	12
Wheat breakfast food (128)	21,092	.....	13,494	337	54	2,105	7,598	190	30	1,185	36
Cake, marble (137)	14,515	.....	14,515	914	668	8,259	.....	.....	.....	.....	.....
Oatmeal (113)	46,607	.....	37,989	988	456	3,989	8,618	224	103	905	18
Gingerbread (141)	23,361	.....	23,361	1,355	2,102	14,835	.....	.....	.....	.....	.....
Mush (98)	21,999	.....	15,082	196	60	2,172	6,917	90	28	996	31
Total	720,201	.....	620,524	43,627	9,153	267,483	99,677	6,264	996	37,335	14
Sugar (146)	8,278	.....	8,278	.....	.....	8,278	.....	.....	.....	.....	.....
Vegetables:											
Potatoes, steamed (207)	76,545	7,258	57,040	1,084	57	8,556	12,247	233	12	1,837	16
Soup, bean (239)	245,171	.....	163,523	3,434	327	10,956	81,648	1,715	163	5,470	33
Turnips, mashed (269)	18,710	.....	16,783	252	34	1,527	1,927	29	4	175	10
Soup, vegetable (253)	85,957	.....	85,957	602	.....	5,157	.....	.....	.....	.....	.....

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 374—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Beans, baked (151)	26,083	2,722	20,866	1,857	1,231	5,508	2,495	222	147	659	10
Beans, baked (150)	33,566	.....	32,432	3,146	2,076	8,173	1,134	110	73	286	3
Tomatoes, stewed (268)	22,907	2,495	18,598	298	260	2,343	1,814	29	25	229	8
Beets, boiled (158)	17,690	.....	13,948	251	84	1,925	3,742	67	22	516	21
Pickles, cucumber (190)	7,258	.....	6,577	33	20	176	681	3	2	18	9
Sauce, rhubarb (234)	20,979	.....	14,175	71	85	3,274	6,804	34	41	1,572	32
Beans, Lima, boiled (155)	26,308	.....	25,288	1,416	126	5,209	1,020	57	5	210	4
Total	581,174	12,475	455,187	12,444	4,300	52,804	113,512	2,499	494	10,972	20
Fruits, etc.:											
Sauce, peach (307)	51,030	.....	42,638	810	171	13,559	8,392	159	34	2,669	16
Jelly, apple (292)	13,607	.....	12,360	37	.....	8,652	1,247	4	.....	873	9
Prunes, stewed (290)	22,793	.....	20,979	147	.....	7,196	1,814	13	.....	622	8
Sauce, apple (302)	46,268	.....	36,969	148	148	10,277	9,299	37	37	2,585	20
Total	133,698	.....	112,946	1,142	319	39,684	20,752	213	71	6,749	16
Total vegetable food	1,443,351	12,475	1,196,935	57,213	13,772	368,249	233,941	8,976	1,561	55,056	16
MISCELLANEOUS FOOD.											
Stew, beef (316)	63,390	6,804	50,123	4,962	4,611	3,509	6,463	640	595	452	10
Macaroni and tomato (334)	23,360	.....	21,319	746	107	4,093	2,041	71	10	392	9
Pudding, steamed (367)	38,102	.....	35,040	1,507	1,927	19,447	3,062	132	168	1,699	8
Sauce, pudding (371)	26,082	.....	25,742	1,287	978	4,196	340	17	13	55	1
Hash (308)	28,350	.....	26,762	3,372	2,703	2,756	1,588	200	160	164	6
Pie, apple, evaporated (344)	21,773	.....	21,773	414	1,459	6,314	.....	.....	.....	.....	.....
Liver and bacon (310)	13,268	.....	11,794	3,043	4,741	94	1,474	380	593	12	11
Potpie, beef (316)	34,247	.....	32,659	3,233	3,005	2,286	1,588	157	146	111	5
Total	248,572	6,804	225,212	18,564	19,531	42,695	16,556	1,597	1,685	2,885	7
Total food	1,925,638	23,588	1,629,667	116,610	99,236	412,694	272,383	15,068	9,319	57,955	14

Dietary study No. 875.

ANIMAL FOOD.											
Beef, veal, and mutton:											
Corned (31)	6,124	1,587	3,175	933	705	.....	1,362	400	302	.....	22
Beefsteak (26)	4,195	.....	3,515	872	967	.....	680	169	187	.....	16
Boiled (9)	5,670	.....	2,381	698	788	.....	3,289	964	1,089	.....	58
Roast (15)	5,217	.....	3,629	831	871	.....	1,588	364	381	.....	30
Total	21,206	1,587	12,700	3,334	3,331	.....	6,919	1,897	1,959	.....	33
Pork:											
Sausage (62)	3,402	.....	3,062	615	1,693	49	340	68	188	5	10
Shoulder (55)	6,010	.....	2,381	407	643	.....	3,629	621	980	.....	60
Total	9,412	.....	5,443	1,022	2,336	49	3,969	689	1,168	5	42
Fish:											
Cod, salt (75)	11,000	.....	5,557	1,600	22	.....	5,443	1,567	22	.....	49
Haddock (72)	6,463	.....	4,649	418	549	88	1,814	163	214	35	28
Total	17,463	.....	10,206	2,018	571	88	7,257	1,730	236	35	42
Butter (88)	21,092	.....	18,881	189	16,049	.....	2,211	22	1,880	.....	10
Total animal food	69,173	1,587	47,230	6,563	22,287	137	20,356	4,338	5,243	40	29
VEGETABLE FOOD.											
Cereals:											
Corn-meal mush (98)	3,855	.....	3,742	49	15	539	113	1	.....	16	3
Hominy (94)	13,721	.....	7,371	147	66	1,400	6,350	127	57	1,207	46
Oatmeal (113)	6,237	.....	3,175	83	38	333	3,062	80	37	322	49
Wheat breakfast food (127)	6,577	.....	2,268	41	9	311	4,309	78	17	590	66
Rice, boiled (124)	11,907	.....	7,258	87	.....	878	4,649	56	.....	563	39
Wheat breakfast food (128)	6,350	.....	3,175	79	13	495	3,175	79	13	495	50
Bread (133)	106,142	9,299	74,277	6,833	966	39,441	22,566	2,076	293	11,983	21
Crackers (134)	5,897	1,021	2,948	289	268	2,155	1,928	189	175	1,409	33
Corn bread (132)	3,402	.....	3,402	201	374	1,289	.....	.....	.....	.....	.....
Cookies, ginger (141)	3,175	.....	1,928	112	174	1,224	1,247	72	112	792	39
Dressing, bread (142)	454	.....	454	42	6	241	.....	.....	.....	.....	.....
Gingerbread (141)	6,804	.....	5,557	322	500	3,529	1,247	72	112	792	18
Cake (137)	5,444	.....	4,990	314	230	2,839	454	29	21	258	8
Total	179,965	10,320	120,545	8,599	2,659	54,674	49,100	2,859	837	18,427	27
Sugar (146)	2,268	.....	2,268	.....	.....	2,268	.....	.....	.....	.....	.....
Vegetables:											
Beans and kidney (154)	7,033	.....	3,289	332	26	881	3,744	378	30	1,004	53
Beans, baked (152)	7,598	.....	5,670	442	448	1,315	1,928	150	152	447	25
Cabbage, boiled (166)	7,257	.....	5,443	103	22	359	1,814	34	7	120	25
Corn, stewed (179)	4,536	.....	4,082	127	131	824	454	14	15	92	10

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 375—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Sauce, rhubarb (234)	11,340	.....	7,371	37	44	1,704	3,969	20	24	917	35
Soup, bean (239)	65,319	.....	38,443	807	77	2,576	26,876	564	54	1,801	41
Soup, vegetable (253)	19,958	.....	12,020	84	.....	721	7,938	56	.....	476	40
Turnips, boiled (269)	5,670	.....	5,103	77	10	464	567	9	1	52	10
Potatoes, steamed (207)	29,711	.....	19,165	364	19	2,875	10,546	200	11	1,582	35
Total	158,422	.....	100,586	2,373	777	11,719	57,836	1,425	294	6,491	37
Fruits, etc.:											
Jelly, apple (292)	8,619	.....	3,856	12	.....	2,699	4,763	14	.....	3,334	55
Sauce, apple (302)	5,217	.....	3,629	15	15	1,009	1,588	6	6	441	30
Sauce, peach (307)	12,587	.....	6,237	119	25	1,983	6,350	121	25	2,019	50
Total	26,423	.....	13,722	146	40	5,691	12,701	141	31	5,794	48
Total vegetable food	367,078	10,320	237,121	11,118	3,476	74,352	119,637	4,425	1,162	30,712	33
MISCELLANEOUS FOOD.											
Pudding, cottage (358)	3,062	.....	3,062	193	141	1,742	.....	.....	.....	.....	.....
Hominy and beans (332)	7,258	2,722	4,309	203	39	931	227	11	2	49	3
Liver and bacon (310)	3,856	.....	3,289	849	1,322	26	567	146	228	5	15
Pie, evaporated apple (345)	8,846	.....	7,031	218	689	3,009	1,815	56	178	777	21
Pudding, bread (353)	8,164	.....	7,484	195	172	1,654	680	18	16	150	8
Sauce, pudding (370)	3,629	.....	3,629	33	171	508	.....	.....	.....	.....	.....
Stew, beef (316)	23,814	2,495	18,144	1,796	1,669	1,270	3,175	314	292	222	13
Total	58,629	5,217	46,948	3,487	4,203	9,140	6,464	545	716	1,203	11
Total food	494,880	17,124	331,299	21,168	29,966	83,629	146,457	9,308	7,121	31,955	30
Dietary study No. 376.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Corned (31)	3,629	.....	1,928	567	428	.....	1,701	500	378	.....	47
Boiled (9)	3,969	.....	2,835	831	938	.....	1,134	332	375	.....	29

Beefsteak (26)	3,515	.....	2,381	590	655	.....	1,134	281	312	.....	32
Roast (15)	3,061	.....	2,381	545	571	.....	680	156	163	.....	22
Total	14,174	.....	9,525	2,533	2,592	.....	4,649	1,269	1,228	.....	33
Pork:											
Sausage (62)	2,041	.....	1,701	342	941	27	340	68	188	5	17
Shoulder (55)	3,628	.....	1,814	310	490	.....	1,814	310	490	.....	50
Total	5,669	.....	3,515	652	1,431	27	2,154	378	678	5	38
Fish:											
Cod, salt (75)	3,176	.....	1,021	294	4	.....	2,155	620	9	.....	68
Haddock (72)	4,763	.....	3,062	276	362	58	1,701	153	201	32	36
Total	7,939	.....	4,083	570	366	58	3,856	773	210	32	49
Butter (88)	13,948	.....	11,425	114	9,711	.....	2,523	25	2,145	.....	18
Total animal food	41,730	.....	28,548	3,869	14,100	85	13,182	2,445	4,261	37	32
VEGETABLE FOOD.											
Cereals:											
Corn-meal mush (98)	2,155	.....	2,155	28	9	310	.....	.....	.....	.....	.....
Hominy (94)	8,845	.....	4,082	82	37	776	4,763	95	43	905	54
Oatmeal (113)	4,423	.....	2,722	71	33	286	1,701	44	20	179	38
Rice (124)	8,278	.....	1,928	23	.....	233	6,350	76	.....	768	77
Wheat breakfast food (127)	5,216	.....	2,381	43	9	326	2,835	51	11	388	54
Wheat breakfast food (128)	4,763	.....	2,268	57	9	354	2,495	62	10	389	52
Bread (133)	68,607	2,495	46,267	4,257	601	24,568	19,845	1,826	258	10,538	29
Crackers (134)	3,969	226	2,722	267	248	1,990	1,021	100	93	746	26
Dressing, bread (142)	454	.....	454	42	6	241	.....	.....	.....	.....	.....
Gingerbread (141)	4,536	.....	3,629	210	327	2,304	907	53	82	576	20
Cookies, ginger (141)	3,175	.....	3,175	184	286	2,016	.....	.....	.....	.....	.....
Cake (137)	3,629	.....	3,629	229	167	2,065	.....	.....	.....	.....	.....
Total	118,050	2,721	75,412	5,493	1,732	35,469	39,917	2,307	517	14,489	34
Sugar (146)	2,268	.....	2,268	.....	.....	2,268	.....	.....	.....	.....	.....
Vegetables:											
Beans, kidney (154)	5,443	.....	3,515	355	28	942	1,928	195	15	517	35
Beans, baked (152)	8,845	.....	8,732	681	690	2,026	113	9	9	26	1
Corn, stewed (179)	3,403	.....	2,949	92	94	596	454	14	15	92	13
Potatoes, steamed (207)	19,618	.....	9,865	187	10	1,480	9,753	185	10	1,463	50
Soup, bean (239)	31,299	.....	14,969	314	30	1,003	16,330	343	33	1,094	52
Soup, vegetable (253)	11,340	.....	5,670	40	.....	340	5,670	40	.....	340	50
Sauce, rhubarb (234)	7,257	.....	5,783	29	35	1,336	1,474	7	9	340	20
Turnips, boiled (269)	3,855	.....	3,175	48	6	289	680	10	1	62	18
Cabbage, boiled (166)	4,876	.....	3,102	65	14	225	1,474	28	6	97	30
Total	95,936	.....	58,060	1,811	907	8,237	37,876	831	98	4,031	39

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 376—Continued.											
VEGETABLE FOOD—continued.											
Fruits, etc.:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Jelly, apple (292)	8,618	.....	7,711	23	.....	5,398	907	3	.....	635	11
Sauce, apple (302)	4,309	.....	3,742	15	15	1,040	567	2	2	158	13
Sauce, peach, evaporated (307)	7,824	.....	5,443	103	22	1,731	2,381	45	10	757	30
Total	20,751	.....	16,896	141	37	8,169	3,855	50	12	1,550	.....
Total vegetable food	237,005	2,721	152,636	7,445	2,676	54,143	81,648	3,188	627	20,070	34
MISCELLANEOUS FOOD.											
Pudding, cottage (358)	2,608	.....	2,608	164	120	1,484	.....	.....	.....	.....	.....
Hominy and beans (332)	6,350	.....	6,350	298	57	1,372	.....	.....	.....	.....	.....
Liver and bacon (310)	1,928	.....	1,474	380	593	12	454	117	182	4	24
Pudding, bread (353)	5,897	.....	5,443	142	125	1,203	454	12	10	100	8
Pie, evaporated apple (345)	5,443	.....	5,443	169	533	2,330	.....	.....	.....	.....	.....
Stew, beef (316)	16,216	.....	11,907	1,179	1,095	833	4,309	427	396	302	27
Sauce, pudding (370)	3,629	.....	3,629	33	171	508	.....	.....	.....	.....	.....
Total	42,071	.....	36,854	2,365	2,694	7,742	5,217	556	588	406	12
Total food	320,806	2,721	218,038	13,679	19,470	61,970	100,047	6,189	5,476	20,513	31
Dietary study No. 377.											
ANIMAL FOOD.											
Beef:											
Boiled (9)	6,464	.....	4,536	1,329	1,501	.....	1,928	565	638	.....	30
Corned (31)	6,124	.....	4,536	1,334	1,007	.....	1,588	467	353	.....	26
Roast (15)	4,763	.....	3,402	779	817	.....	1,361	312	327	.....	29
Steak (26)	4,309	.....	3,515	872	967	.....	794	197	218	.....	18
Total	21,660	.....	15,989	4,314	4,292	.....	5,671	1,541	1,536	.....	26
Pork:											
Sausage, fried (62)	3,402	.....	3,402	684	1,881	54	.....	.....	.....	.....	.....
Shoulder, boiled (55)	5,783	.....	3,288	563	887	.....	2,495	427	674	.....	43
Total	9,185	.....	6,690	1,247	2,768	54	2,495	427	674	.....	27

Fish:											
Cod, salt, boiled (75)	4,196	.....	2,495	719	10	.....	1,701	490	7	.....	40
Haddock, baked (72)	5,443	.....	3,175	286	375	60	2,268	204	268	43	42
Total	9,639	.....	5,670	1,005	385	60	3,969	694	275	43	41
Butter (88)	21,092	.....	19,958	200	16,964	.....	1,134	11	964	.....	5
Total animal food	61,576	.....	48,307	6,766	24,409	114	13,269	2,673	3,449	43	22
VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	108,410	.....	89,699	8,252	1,166	47,630	18,711	1,721	243	9,936	17
Cake (137)	4,990	.....	4,990	314	230	2,839	.....	.....	.....	.....	.....
Crackers, (134)	4,763	.....	4,763	467	433	3,482	.....	.....	.....	.....	.....
Gingerbread (141)	6,804	.....	6,804	395	612	4,320	.....	.....	.....	.....	.....
Ginger cookies (141)	3,629	.....	3,175	184	286	2,016	454	26	41	288	13
Hominy (94)	11,113	.....	5,670	113	51	1,077	5,443	109	49	1,034	49
Dressing, bread (142)	454	.....	454	42	6	241	.....	.....	.....	.....	.....
Mush, fried (98)	2,835	.....	2,835	37	11	408	.....	.....	.....	.....	.....
Oatmeal (113)	6,010	.....	3,515	91	42	369	2,495	65	30	262	42
Rice, boiled (124)	11,793	.....	4,649	56	.....	562	7,144	86	.....	864	61
Wheat breakfast food (128)	5,217	.....	3,856	96	15	602	1,361	34	5	212	26
Wheat breakfast food (127)	6,350	.....	1,814	33	7	249	4,536	82	18	621	71
Total	172,368	.....	132,224	10,080	2,859	63,795	40,144	2,123	386	13,217	23
Sugar (146)	2,268	.....	2,268	.....	.....	2,268	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (152)	12,021	.....	10,433	814	824	2,420	1,588	124	125	368	13
Beans, kidney, boiled (154)	6,577	.....	5,330	538	43	1,429	1,247	126	10	334	19
Cabbage, boiled (166)	7,484	.....	5,216	99	21	344	2,268	43	9	150	30
Corn, stewed (179)	3,742	.....	3,742	116	120	756	.....	.....	.....	.....	.....
Potatoes, steamed (207)	26,422	.....	19,051	362	19	2,858	7,371	140	7	1,106	28
Sauce, rhubarb (234)	8,845	.....	6,691	33	40	1,546	2,154	11	13	498	24
Soup, bean (239)	66,225	.....	51,710	1,086	103	3,465	14,515	305	29	973	22
Soup, vegetable (253)	19,958	.....	13,381	94	.....	803	6,577	46	.....	395	33
Turnips, boiled (269)	4,536	.....	4,082	61	8	371	454	7	1	41	10
Total	155,810	.....	119,636	3,203	1,178	13,992	36,174	802	194	3,865	23
Fruits, etc.:											
Jelly, apple (292)	9,185	.....	7,144	21	.....	5,001	2,041	6	.....	1,429	22
Sauce, apple (302)	5,331	.....	4,310	17	17	1,198	1,021	4	4	284	19
Sauce, peach, evaporated (307)	10,886	.....	7,711	147	30	2,452	3,175	60	13	1,010	29
Total	25,402	.....	19,165	185	47	8,651	6,237	70	17	2,723	25
Total vegetable food	355,848	.....	273,293	13,468	4,084	88,706	82,555	2,995	597	19,805	23

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 377—Continued.											
MISCELLANEOUS FOOD.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Pudding, cottage (358)	2,948	.....	2,948	186	136	1,678	.....	.....	.....	.....	.....
Hominy and beans (332)	7,257	.....	1,814	85	16	392	5,443	256	49	1,176	75
Liver and bacon (310)	3,402	.....	3,062	790	1,231	25	340	88	137	3	10
Pie, apple, evaporated (345)	7,484	.....	7,484	232	734	3,203	.....	.....	.....	.....	.....
Pudding, bread (353)	6,577	.....	6,577	171	151	1,454	.....	.....	.....	.....	.....
Sauce for pudding (370)	1,814	.....	1,814	16	85	254	.....	.....	.....	.....	.....
Stew, beef (216)	23,473	.....	18,824	1,864	1,732	1,318	4,649	460	428	325	20
Total	52,955	.....	42,523	3,344	4,085	8,324	10,432	804	614	1,504	20
Total food	470,379	.....	364,123	23,578	32,578	97,144	106,256	6,472	4,660	21,352	23
Dietary study No. 378.											
ANIMAL FOOD.											
Beef:											
Corned (31)	3,062	.....	2,608	767	579	.....	454	133	101	.....	15
Steak (26)	2,948	1,360	1,134	281	312	.....	454	113	125	.....	15
Boiled (9)	2,948	1,361	1,247	365	413	.....	340	100	113	.....	12
Roast (17)	2,268	1,814	.....	.....	.....	.....	454	108	114	.....	20
Total	11,226	4,535	4,989	1,413	1,304	.....	1,702	454	453	.....	15
Pork:											
Sausage (62)	1,814	.....	1,474	296	815	24	340	68	188	5	19
Shoulder (55)	3,402	907	2,041	349	551	.....	454	78	123	.....	13
Total	5,216	907	3,515	645	1,366	24	794	146	311	5	15
Fish:											
Herring, fresh (73)	6,011	.....	5,217	1,414	1,487	318	794	215	226	48	13
Mackerel, salt (80)	1,814	.....	1,474	386	413	.....	340	90	95	.....	19
Total	7,825	.....	6,691	1,800	1,900	318	1,134	305	321	48	14
Butter (88)	5,443	.....	4,054	41	3,446	.....	1,389	14	1,181	.....	26
Total animal food	29,710	5,442	19,249	3,899	8,016	342	5,019	919	2,266	53	17

VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	60,953	9,639	43,149	3,970	561	22,912	8,165	751	106	4,336	13
Crackers (134)	2,268	.....	2,268	222	207	1,658	.....	.....	.....	.....	.....
Wheat breakfast food (127)	3,402	.....	3,062	55	12	420	340	6	1	47	10
Macaroni (143)	4,082	.....	3,515	116	74	555	567	19	12	90	14
Oatmeal (113)	3,175	.....	2,495	65	30	262	680	18	8	71	21
Rice (124)	9,752	4,535	5,217	63	.....	631	.....	.....	.....	.....	.....
Gingerbread (141)	6,502	1,474	4,801	279	433	3,049	227	13	20	144	3
Mush (98)	3,175	.....	2,041	27	8	294	1,134	15	5	163	36
Hominy (94)	6,917	.....	4,195	84	38	797	2,722	54	24	517	39
Wheat breakfast food (28)	3,402	.....	2,835	71	11	442	567	14	2	88	17
Cake (137)	2,949	.....	2,949	186	136	1,678	.....	.....	.....	.....	.....
Total	106,577	15,648	76,527	5,138	1,510	32,698	14,402	890	178	5,456	14
Sugar (146)	4,763	.....	4,763	.....	.....	4,763	.....	.....	.....	.....	.....
Vegetables:											
Sauce, rhubarb (234)	3,629	.....	3,062	15	18	707	567	3	3	131	16
Soup, bean (239)	42,638	.....	24,381	512	49	1,634	18,257	383	37	1,223	43
Soup, vegetable (253)	13,608	.....	9,866	69	.....	592	3,742	26	.....	225	28
Potatoes, steamed (207)	21,999	907	16,216	308	16	2,432	4,876	93	5	731	22
Onions, boiled (184)	3,856	.....	2,495	30	45	122	1,361	16	25	67	35
Beans, baked (152)	7,485	.....	5,217	407	412	1,210	2,268	177	179	526	30
Pickles, cucumber (190)	2,268	.....	1,814	9	5	49	454	2	1	12	20
Turnips, boiled (269)	3,629	.....	3,629	54	7	330	.....	.....	.....	.....	.....
Tomatoes, stewed (268)	3,515	.....	2,608	42	37	329	907	15	13	114	26
Total	102,627	907	69,288	1,446	589	7,405	32,432	715	263	3,029	32
Fruits, etc.:											
Apples, fresh (271)	16,896	.....	16,896	51	51	1,825	.....	.....	.....	.....	.....
Sauce, apple (300)	3,402	.....	2,722	11	14	825	680	3	3	206	20
Sauce, peach (307)	7,371	.....	4,309	82	17	1,370	3,062	58	12	974	42
Jelly, apple (292)	3,628	.....	2,381	7	.....	1,667	1,247	4	.....	873	34
Prunes, stewed (291)	3,969	.....	3,402	27	.....	1,391	567	5	.....	232	14
Total	35,266	.....	29,710	178	82	7,078	5,556	70	15	2,285	16
Total vegetable food	249,233	16,555	180,288	6,762	2,181	51,944	52,390	1,675	456	10,770	21
MISCELLANEOUS FOOD.											
Liver and bacon (310)	1,815	.....	1,758	454	707	14	57	15	23	1	3
Stew, beef (316)	11,226	1,474	8,845	876	814	619	907	90	83	64	8
Pudding, bread (353)	6,124	.....	6,124	159	141	1,353	.....	.....	.....	.....	.....
Total	19,165	1,474	16,727	1,489	1,662	1,986	964	105	106	65	5
Total food	298,108	23,471	216,264	12,150	11,859	54,272	58,373	2,699	2,828	10,888	20

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 379.											
ANIMAL FOOD.											
Beef:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Corned (31)	6,463	1,814	3,742	1,100	831	.....	907	267	201	.....	14
Steak (26)	3,855	.....	3,288	815	904	.....	567	141	156	.....	15
Boiled (9)	6,577	1,814	4,763	1,396	1,577	.....	.....	.....	.....	.....	.....
Roast (17)	4,309	.....	4,309	1,026	1,077	.....	.....	.....	.....	.....	.....
Total	21,204	3,628	16,102	4,337	4,389	.....	1,474	408	357	.....	7
Pork:											
Sausage (62)	3,402	.....	3,402	684	1,881	54	.....	.....	.....	.....	.....
Shoulder (55)	4,423	.....	1,928	330	521	.....	2,495	427	674	.....	56
Total	7,825	.....	5,330	1,014	2,402	54	2,495	427	674	.....	32
Fish:											
Herring, fresh (73)	18,938	.....	17,067	4,625	4,864	1,041	1,871	507	533	114	10
Mackerel, salt (80)	3,289	.....	2,835	743	794	.....	454	119	127	.....	14
Total	22,227	.....	19,902	5,368	5,658	1,041	2,325	626	660	114	10
Butter (88)	10,886	.....	10,886	109	9,253	.....	.....	.....	.....	.....	.....
Total animal food	62,142	3,628	52,220	10,828	21,702	1,095	6,294	1,461	1,691	114	10
VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	117,767	5,330	102,713	9,450	1,335	54,541	9,724	895	126	5,163	8
Crackers (134)	3,856	.....	3,856	378	351	2,819	.....	.....	.....	.....	.....
Wheat breakfast food (127)	5,443	.....	4,082	73	16	559	1,361	24	5	186	25
Macaroni (143)	6,917	2,268	3,742	123	79	591	907	30	19	143	13
Oatmeal (113)	4,536	.....	3,402	88	41	357	1,134	29	14	119	25
Rice (124)	15,196	10,093	5,103	61	.....	617	.....	.....	.....	.....	.....
Gingerbread (141)	8,845	.....	8,703	505	783	5,526	142	8	13	90	2
Mush (98)	3,629	.....	3,175	41	13	457	454	6	2	65	13
Hominy (94)	8,732	3,289	3,515	70	32	668	1,928	39	17	366	22

Wheat breakfast food (128)	4,876	.....	3,515	88	14	548	1,361	34	5	212	28
Cake (137)	2,949	.....	2,949	186	136	1,678	.....	.....	.....	.....	.....
Total	182,746	20,980	144,755	11,063	2,800	68,361	17,011	1,065	201	6,344	9
Sugar (146)	1,701	.....	1,701	.....	.....	1,701	.....	.....	.....	.....	.....
Vegetables:											
Sauce, rhubarb (234)	4,536	.....	4,309	22	26	995	227	1	1	52	5
Soup, bean (239)	78,926	.....	53,865	1,131	108	3,609	25,061	526	50	1,680	32
Soup, vegetable (253)	27,216	.....	22,226	156	.....	1,334	4,990	35	.....	299	18
Potatoes, steamed (207)	28,917	794	26,082	496	26	3,912	2,041	39	2	306	7
Onions, boiled (184)	6,124	.....	6,124	73	110	300	.....	.....	.....	.....	.....
Beans, baked (152)	12,247	.....	11,453	893	905	2,657	794	62	63	184	6
Pickles, cucumber (190)	2,268	.....	2,268	11	7	61	.....	.....	.....	.....	.....
Turnips (269)	5,443	.....	5,443	82	11	495	.....	.....	.....	.....	.....
Tomatoes, stewed (268)	5,443	.....	4,309	69	60	543	1,134	18	16	143	21
Total	171,120	794	136,079	2,933	1,253	13,906	34,247	681	132	2,664	20
Fruits, etc.:											
Apples, fresh (271)	26,876	.....	26,876	81	81	2,903	.....	.....	.....	.....	.....
Sauce, apple (300)	4,649	.....	4,649	19	23	1,409	.....	.....	.....	.....	.....
Sauce, peach (307)	10,433	.....	9,412	179	38	2,993	1,021	19	4	325	10
Jelly, apple (292)	4,536	.....	3,969	12	.....	2,778	567	2	.....	397	13
Prunes, stewed (291)	5,216	.....	4,536	36	.....	1,855	680	5	.....	278	13
Total	51,710	.....	49,442	327	142	11,938	2,268	26	4	1,000	4
Total vegetable food	407,277	21,774	331,977	14,323	4,195	95,906	53,526	1,772	337	10,008	13
MISCELLANEOUS FOOD.											
Liver and bacon (310)	3,062	.....	3,062	790	1,231	24	.....	.....	.....	.....	.....
Stew, beef (316)	17,463	.....	15,649	1,549	1,440	1,095	1,814	180	167	127	10
Pudding, bread (353)	9,526	.....	9,526	248	219	2,105	.....	.....	.....	.....	.....
Total	30,051	.....	28,237	2,587	2,890	3,224	1,814	180	167	127	6
Total food	499,470	25,402	412,434	27,738	28,787	100,225	61,634	3,413	2,195	10,249	12
Dietary study No. 380.											
ANIMAL FOOD.											
Beef:											
Corned (31)	6,577	2,608	3,289	967	730	.....	680	200	151	.....	10
Steak (26)	4,763	.....	3,856	956	1,060	.....	907	225	249	.....	19
Boiled (9)	6,463	3,741	2,722	798	901	.....	.....	.....	.....	.....	.....
Roast (17)	4,763	.....	4,536	1,080	1,134	.....	227	54	57	.....	5
Total	22,566	6,349	14,403	3,801	3,825	.....	1,814	479	457	.....	8

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 380—Continued.											
ANIMAL FOOD—continued.											
Pork:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Sausage (62)	3,629	567	3,062	615	1,693	49	.....	.....	.....	.....	.....
Shoulder (55)	6,237	2,722	3,515	601	949	.....	.....	.....	.....	.....	.....
Total	9,866	3,289	6,577	1,216	2,642	49	.....	.....	.....	.....	.....
Fish:											
Herring, fresh (73)	16,103	.....	12,928	3,503	3,683	789	3,175	860	905	194	20
Mackerel, salt (80)	3,855	2,041	1,814	475	508	.....	.....	.....	.....	.....	.....
Total	19,958	2,041	14,742	3,978	4,191	789	3,175	860	905	194	16
Butter (88)	10,887	.....	10,490	105	8,917	.....	397	4	337	.....	4
Total animal food	63,277	11,679	46,212	9,100	19,575	838	5,386	1,343	1,699	194	9
VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	116,972	15,989	96,787	8,904	1,258	51,394	4,196	386	55	2,228	4
Crackers (134)	4,309	453	3,771	370	343	2,757	85	8	8	62	2
Wheat breakfast food (127)	4,990	.....	3,402	61	14	466	1,588	29	6	218	32
Macaroni (143)	6,690	1,360	5,330	176	112	842	.....	.....	.....	.....	.....
Oatmeal (113)	5,897	2,041	3,856	100	46	405	.....	.....	.....	.....	.....
Rice (124)	18,371	11,567	6,804	82	.....	823	.....	.....	.....	.....	.....
Gingerbread (141)	8,845	680	8,165	474	735	5,185	.....	.....	.....	.....	.....
Mush (98)	4,989	.....	3,175	41	13	457	1,814	24	7	261	36
Hominy (94)	9,639	3,175	3,969	79	36	754	2,495	50	22	474	26
Wheat breakfast food (128)	4,536	.....	3,175	79	13	495	1,361	34	5	212	30
Cake (137)	3,175	.....	3,175	200	146	1,807	.....	.....	.....	.....	.....
Total	188,413	35,265	141,609	10,566	2,716	65,385	11,539	531	103	3,455	6
Sugar (146)	2,646	.....	2,646	.....	.....	2,646	.....	.....	.....	.....	.....
Vegetables:											
Rhubarb sauce (234)	4,877	.....	3,856	19	23	891	1,021	5	6	236	21
Soup, bean (239)	83,463	.....	53,525	1,124	107	3,586	29,938	629	60	2,006	36

Soup, vegetable (253)	27,216	.....	15,422	108	.....	925	11,794	83	.....	708	43
Potatoes, steamed (207)	30,051	11,226	17,974	342	18	2,696	851	16	1	127	3
Onions, boiled (184)	5,103	.....	3,742	45	67	183	1,361	16	25	67	27
Beans, baked (152)	11,907	.....	10,206	796	806	2,368	1,701	133	134	395	14
Pickles, cucumber (190)	2,268	.....	2,268	11	7	61	.....	.....	.....	.....	.....
Turnips, boiled (269)	5,443	2,268	3,175	48	6	289	.....	.....	.....	.....	.....
Tomatoes, stewed (268)	5,783	.....	4,422	71	62	557	1,361	22	19	171	24
Total	176,111	13,494	114,590	2,564	1,096	11,556	48,027	904	245	3,710	27
Fruits, etc.:											
Apples (271)	29,030	.....	29,030	87	87	3,135	.....	.....	.....	.....	.....
Sauce, apple (300)	5,103	.....	4,309	17	22	1,306	794	3	4	241	16
Sauce, peach (307)	11,567	.....	8,845	168	35	2,813	2,722	52	11	866	24
Jelly, apple (292)	4,990	.....	3,969	12	.....	2,778	1,021	3	.....	715	20
Prunes, stewed (291)	5,443	.....	4,196	34	.....	1,716	1,247	10	.....	510	23
Total	56,133	.....	50,349	318	144	11,748	5,784	68	15	2,332	10
Total vegetable food	423,305	48,759	309,194	13,448	3,956	91,335	65,350	1,503	363	9,497	15
MISCELLANEOUS FOOD.											
Liver and bacon (310)	3,516	.....	3,062	790	1,231	24	454	117	183	4	13
Stew, beef (316)	18,030	2,267	14,969	1,480	1,377	1,048	794	79	73	56	4
Pudding, bread (353)	9,526	.....	9,526	248	219	2,105	.....	.....	.....	.....	.....
Total	31,072	2,267	27,557	2,518	2,827	3,177	1,248	196	256	60	4
Total food	517,652	62,705	382,963	25,066	26,358	95,350	71,984	3,042	2,318	9,751	14
Dietary study No. 381.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Boiled (9)	5,216	1,814	2,722	798	901	.....	680	199	225	.....	13
Beefsteak (26)	3,402	.....	3,402	844	936	.....	.....	.....	.....	.....	.....
Corned (28)	3,969	.....	3,515	805	608	.....	454	104	79	.....	11
Roast (14)	6,124	.....	5,217	1,080	1,137	.....	907	188	198	.....	15
Total	18,711	1,814	14,856	3,527	3,582	.....	2,041	491	502	.....	11
Pork:											
Ham (53)	2,722	681	1,361	289	400	.....	680	144	200	.....	25
Sausage (62)	2,495	.....	2,268	456	1,254	36	227	46	126	4	9
Shoulder (55)	3,969	.....	3,515	601	949	.....	454	78	123	.....	11
Total	9,186	681	7,144	1,346	2,603	36	1,361	268	449	1	15

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 381—Continued.											
ANIMAL FOOD—continued.											
Fish:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Herring (73)	4,649	.....	4,649	1,260	1,325	284	.....	.....	.....	.....	.....
Mackerel (80)	3,175	.....	2,268	594	635	.....	907	238	254	.....	28
Shad (74)	3,969	.....	3,289	296	388	62	680	61	80	13	17
Total	11,793	.....	10,206	2,150	2,348	346	1,587	299	334	13	13
Butter (88)	7,711	.....	7,711	77	6,554	.....	.....	.....	.....	.....	.....
Milk (91)	27,216	.....	27,216	895	1,089	1,361	.....	.....	.....	.....	.....
Total animal food	74,617	2,495	67,133	7,995	16,176	1,743	4,989	1,058	1,285	17	7
VEGETABLE FOOD.											
Cereals:											
Corn-meal mush (98)	3,742	.....	3,175	41	13	457	567	7	2	82	15
Hominy (94)	7,598	2,722	4,876	98	44	926	.....	.....	.....	.....	.....
Oatmeal (113)	7,938	.....	7,371	192	88	774	567	15	7	60	7
Rice (124)	12,587	5,670	5,783	69	.....	700	1,134	14	.....	137	9
Wheat breakfast food (128)	4,082	.....	4,082	102	16	637	.....	.....	.....	.....	.....
Bread (133)	64,411	1,814	58,004	5,336	754	30,800	4,593	423	60	2,439	7
Cake (137)	2,268	.....	2,268	143	104	1,290	.....	.....	.....	.....	.....
Crackers (134)	2,608	.....	2,608	256	237	1,906	.....	.....	.....	.....	.....
Doughnuts (140)	2,495	.....	2,495	167	524	1,325	.....	.....	.....	.....	.....
Gingerbread (141)	6,351	.....	5,897	342	531	3,745	454	26	41	288	7
Macaroni (143)	5,103	.....	4,196	138	88	663	907	30	19	143	18
Total	119,183	10,206	100,755	6,884	2,399	43,223	8,222	515	129	3,149	7
Sugar (146)	3,402	.....	3,402	.....	.....	3,402	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (150)	4,536	567	3,969	385	254	1,000	.....	.....	.....	.....	.....
Beans, baked (151)	5,443	1,360	3,856	343	228	1,018	227	20	13	59	4
Beans, Lima (155)	9,979	907	8,618	483	43	1,775	454	25	2	94	5
Corn (179)	4,196	.....	4,196	130	134	848	.....	.....	.....	.....	.....
Kale (181)	11,567	.....	11,567	162	440	578	.....	.....	.....	.....	.....
Potatoes, steamed (207)	19,732	5,443	14,289	271	14	2,143	.....	.....	.....	.....	.....

Soup, bean (239)	40,824	.....	37,649	791	75	2,522	3,175	67	6	212	8
Soup, vegetable (253)	13,608	.....	12,928	90	.....	776	680	5	.....	41	5
Total	109,885	8,277	97,072	2,655	1,188	10,660	4,536	117	21	406	4
Fruits, etc.:											
Jelly, apple (292)	3,629	2,495	1,134	3	.....	794	.....	.....	.....	.....	.....
Prunes, stewed (291)	8,164	1,814	5,443	44	.....	2,226	907	7	.....	371	11
Sauce, apple (300)	9,299	1,361	6,577	26	33	1,993	1,361	5	7	412	15
Sauce, peach (307)	3,742	2,495	1,247	24	5	397	.....	.....	.....	.....	.....
Total	24,834	8,165	14,401	97	38	5,410	2,268	12	7	783	9
Total vegetable food	257,304	26,648	215,630	9,636	3,625	62,695	15,026	644	157	4,338	6
MISCELLANEOUS FOOD.											
Hash (309)	15,082	.....	12,814	1,499	3,075	1,243	2,268	265	544	220	15
Liver and bacon (310)	5,330	1,020	3,856	995	1,550	31	454	117	183	4	9
Pudding, bread (353)	2,835	.....	2,041	53	47	451	794	21	18	175	28
Pudding, cottage (358)	2,268	.....	2,268	143	104	1,290	.....	.....	.....	.....	.....
Pie, evaporated-apple (345)	4,536	.....	4,536	141	445	1,941	.....	.....	.....	.....	.....
Sauce for pudding (370)	1,361	.....	1,361	12	64	191	.....	.....	.....	.....	.....
Stew, beef (316)	27,783	2,948	20,866	2,066	1,920	1,461	3,969	393	365	278	14
Total	59,195	3,968	47,742	4,909	7,205	6,608	7,485	796	1,110	677	13
Total food	391,116	33,111	330,565	22,540	27,006	71,046	27,500	2,498	2,552	5,032	7
Dietary study No. 382.											
ANIMAL FOOD.											
Beef:											
Boiled (9)	4,763	2,268	2,155	631	713	.....	340	100	113	.....	7
Corned (28)	4,309	2,835	1,134	260	196	.....	340	78	59	.....	8
Roast (14)	5,670	2,721	2,495	516	544	.....	454	94	99	.....	8
Steak (26)	3,402	.....	3,175	787	873	.....	227	56	63	.....	7
Total	18,144	7,824	8,959	2,194	2,326	.....	1,361	328	334	.....	8
Pork:											
Ham, fried (53)	1,814	.....	1,247	264	367	.....	567	120	164	.....	31
Sausage (62)	2,722	340	2,155	433	1,192	34	227	46	126	4	8
Shoulder, boiled (55)	4,309	2,268	1,701	291	459	.....	340	58	92	.....	8
Total	8,845	2,608	5,103	988	2,018	34	1,134	224	382	4	13
Fish:											
Herring, fresh, fried (73)	4,082	.....	4,082	1,106	1,163	249	.....	.....	.....	.....	.....
Mackerel, salt (80)	3,175	.....	2,268	594	635	.....	907	238	254	.....	29
Shad, fresh, baked (74)	4,536	.....	2,495	225	294	47	2,041	184	241	39	45
Total	11,793	.....	8,845	1,925	2,092	296	2,948	422	495	39	25

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 382—Continued.											
ANIMAL FOOD—continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Butter (88)	7,711	.....	7,711	77	6,554	.....	.....	.....	.....	.....	.....
Milk (91)	27,216	.....	27,216	898	1,089	1,361	.....	.....	.....	.....	.....
Total animal food	73,709	10,432	57,834	6,082	14,079	1,691	5,443	974	1,211	43	7
VEGETABLE FOOD.											
Cereals:											
Bread, biscuit, etc. (133)	64,865	2,268	58,061	5,342	755	30,830	4,536	417	59	2,409	7
Cake (137)	2,268	.....	2,268	143	104	1,290	.....	.....	.....	.....	.....
Crackers (134)	2,268	.....	2,268	222	206	1,658	.....	.....	.....	.....	.....
Doughnuts (140)	2,495	.....	2,495	167	524	1,325	.....	.....	.....	.....	.....
Gingerbread (141)	6,124	1,021	5,103	296	459	3,240	.....	.....	.....	.....	.....
Hominy (94)	7,597	.....	6,690	134	60	1,271	907	18	8	172	12
Macaroni, boiled (143)	5,216	.....	4,536	150	95	717	680	22	14	107	13
Mush, cornmeal (98)	3,969	.....	2,608	34	10	376	1,361	18	5	196	34
Oatmeal (113)	8,278	.....	8,278	215	99	869	.....	.....	.....	.....	.....
Rice, boiled (124)	13,835	5,330	8,165	98	.....	988	340	4	.....	41	2
Wheat breakfast food (128)	4,082	1,701	2,381	60	10	371	.....	.....	.....	.....	.....
Total	120,997	10,320	102,853	6,861	2,322	42,935	7,824	479	86	2,925	6
Sugar (146)	4,536	.....	4,536	.....	.....	4,536	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (150)	4,876	567	4,309	418	276	1,086	.....	.....	.....	.....	.....
Beans, baked (151)	4,989	1,474	3,402	303	201	898	113	10	7	30	2
Beans, Lima (155)	10,319	3,855	6,237	349	31	1,285	227	13	1	47	2
Corn, stewed (179)	5,443	.....	5,443	169	174	1,099	.....	.....	.....	.....	.....
Kale, boiled (181)	8,618	.....	8,618	121	327	431	.....	.....	.....	.....	.....
Soup, bean (239)	40,824	.....	40,824	857	82	2,735	.....	.....	.....	.....	.....
Soup, vegetable (253)	13,608	.....	13,608	95	.....	816	.....	.....	.....	.....	.....
Potatoes, steamed (207)	20,071	6,803	13,268	252	13	1,990	.....	.....	.....	.....	.....
Total	108,748	12,699	95,709	2,564	1,104	10,340	340	23	8	77	.....

Fruits, etc.:											
Jelly, apple (292)	3,629	2,155	1,474	4	.....	1,662	.....	.....	.....	.....	.....
Prunes, stewed (291)	7,872	1,021	5,217	345	.....	2,134	1,134	9	.....	464	15
Sauce, apple, evaporated (300)	9,072	1,361	6,690	345	33	2,027	1,021	4	5	309	11
Sauce, peach, evaporated (307)	4,062	2,494	1,568	30	6	505	.....	.....	.....	.....	.....
Total	24,155	7,031	14,949	103	39	5,698	2,155	13	5	773	9
Total vegetable food	258,436	80,050	218,067	9,528	3,465	68,509	10,319	515	99	3,775	4
MISCELLANEOUS FOOD.											
Hash (309)	16,216	.....	13,041	1,526	3,130	1,265	3,175	371	762	306	20
Liver and bacon (310)	4,762	453	3,175	819	1,276	25	1,134	293	456	9	24
Pie, apple, evaporated (345)	4,586	.....	4,586	141	445	1,941	.....	.....	.....	.....	.....
Pudding, bread (353)	2,835	.....	2,835	74	65	627	.....	.....	.....	.....	.....
Pudding, cottage (358)	1,928	.....	1,928	121	99	1,097	.....	.....	.....	.....	.....
Sauce for pudding (370)	1,361	.....	1,361	12	64	191	.....	.....	.....	.....	.....
Stew, beef (316)	27,330	2,722	20,072	1,987	1,847	1,405	4,536	449	417	318	17
Total	58,968	3,175	46,948	4,680	6,916	6,551	8,845	1,113	1,635	635	15
Total food	891,118	43,657	822,849	20,290	24,460	71,751	24,607	2,602	2,945	4,453	6
Dietary study No. 885.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Boiled (9)	4,082	1,700	2,155	631	713	.....	227	67	75	.....	6
Beefsteak (26)	2,608	.....	1,928	478	580	.....	680	169	187	.....	26
Corned (28)	3,289	1,814	1,021	234	177	.....	454	104	79	.....	14
Roast (14)	5,217	2,608	2,155	446	470	.....	454	94	99	.....	9
Total	15,196	6,122	7,259	1,789	1,890	.....	1,815	434	440	.....	12
Pork:											
Sausage (62)	2,722	.....	2,722	347	1,505	44	.....	.....	.....	.....	.....
Shoulder (55)	3,742	1,927	1,361	233	367	.....	454	78	123	.....	12
Total	6,464	1,927	4,083	580	1,872	44	454	78	123	.....	7
Fish:											
Herring (78)	7,144	1,474	5,670	1,537	1,616	346	.....	.....	.....	.....	.....
Mackerel (80)	2,495	.. ..	2,041	535	571	.....	454	119	127	.....	18
Total	9,639	1,474	7,711	2,072	2,187	346	454	119	127	.....	5
Butter (88)	7,710	.....	5,471	55	4,630	.....	2,229	22	1,903	.....	29
Milk (91)	27,216	.....	27,216	896	1,089	1,361	.....	.....	.....	.....	.....
Total animal food	66,225	9,523	51,740	5,394	11,688	1,751	4,902	653	2,593	.....	7

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 383—Continued.											
VEGETABLE FOOD.											
Cereals:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Corn-meal mush (98)	2,949	.....	2,155	28	9	310	794	10	3	114	27
Hominy (94)	6,804	907	5,840	117	53	1,110	57	1	1	11	1
Oatmeal (113)	8,165	1,701	6,464	168	78	679	.....	.....	.....	.....	.....
Rice (124)	13,268	10,546	2,722	33	.....	329	.....	.....	.....	.....	.....
Wheat breakfast food (128)	3,403	.....	2,949	74	12	460	454	11	2	71	13
Bread (133)	63,788	794	55,509	5,107	722	29,475	7,485	689	97	3,975	12
Cake (127)	2,268	.....	2,268	143	104	1,290	.....	.....	.....	.....	.....
Crackers (134)	2,155	.....	2,155	211	196	1,575	.....	.....	.....	.....	.....
Doughnuts (140)	2,381	.....	2,381	160	500	1,264	.....	.....	.....	.....	.....
Gingerbread (141)	5,897	1,021	4,649	270	418	2,952	227	13	20	144	4
Macaroni (143)	4,649	2,268	2,381	79	50	376	.....	.....	.....	.....	.....
Total	115,727	17,237	89,473	6,390	2,142	39,820	9,017	724	123	4,315	8
Sugar (146)	3,402	.....	3,402	.....	.....	3,402	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (150)	3,743	.....	3,289	319	210	829	454	44	29	114	12
Beans, baked (151)	4,763	1,814	2,949	262	174	779	.....	.....	.....	.....	.....
Beans, Lima (155)	8,731	1,814	5,783	324	29	1,191	1,134	64	6	234	13
Corn (179)	4,763	1,814	2,949	91	94	596	.....	.....	.....	.....	.....
Kale (181)	7,485	.....	7,031	98	267	351	454	6	17	23	6
Potatoes, steamed (207)	18,938	12,134	6,804	129	7	1,021	.....	.....	.....	.....	.....
Soup, bean (239)	40,824	.....	37,195	781	74	2,492	3,629	76	7	243	9
Soup, vegetable (253)	13,608	.....	13,608	95	.....	816	.....	.....	.....	.....	.....
Total	102,855	17,576	79,608	2,099	855	8,075	5,671	190	59	614	6
Fruits, etc.:											
Jelly, apple (292)	3,288	1,814	1,474	4	.....	1,032	.....	.....	.....	.....	.....
Prunes, stewed (291)	6,237	.....	6,010	48	.....	2,458	227	2	.....	93	4
Sauce, apple (300)	8,505	.....	8,165	33	41	2,474	340	1	2	103	4
Sauce, peach (307)	4,195	1,927	2,041	39	8	649	227	4	1	72	5
Total	22,225	3,741	17,690	124	49	6,613	794	7	3	268	4
Total vegetable food	244,209	38,554	190,173	8,613	3,046	57,910	15,482	921	185	5,197	6

MISCELLANEOUS FOOD.											
Liver and bacon (310)	2,608	907	1,701	439	684	14					
Pie, evaporated-apple (345)	4,536		4,536	141	445	1,941					
Pudding, bread (353)	2,835		1,588	41	37	351	1,247	32	29	276	44
Pudding, cottage (358)	1,928		1,928	121	89	1,097					
Sauce for pudding (370)	1,361		1,361	12	64	191					
Stew, beef (316)	12,134	1,814	9,299	921	856	651	1,021	101	94	71	8
Total	25,402	2,721	20,413	1,675	2,175	4,245	2,268	133	123	347	9
Total food	335,836	50,798	262,326	15,882	16,909	63,906	22,712	1,707	2,901	5,544	7
Dietary study No. 384.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Boiled (9)	4,536	1,474	2,155	631	713		907	266	300		30
Beefsteak (26)	3,175	907	1,928	478	530		340	84	94		11
Corned (31)	4,536	2,268	1,814	533	403		454	133	102		10
Roast (14)	4,763	2,722	2,041	422	415						
Total	17,010	7,371	7,938	2,064	2,091		1,701	483	495		10
Pork:											
Sausage (62)	3,062		3,062	615	1,693	49					
Shoulder (57)	4,990	2,722	2,041	416	553		227	46	62		5
Total	8,052	2,722	5,103	1,031	2,246	49	227	46	62		3
Fish:											
Herring (73)	7,938	2,721	3,856	1,045	1,099	235	1,361	369	388	83	17
Mackerel (80)	2,835	1,247	1,134	297	318		454	119	127		16
Total	10,773	3,968	4,990	1,342	1,417	235	1,815	488	515	83	17
Butter (88)	7,711		7,711	77	6,554						
Total animal food	43,546	14,061	25,742	4,514	12,308	284	3,743	1,017	1,072	83	9
VEGETABLE FOOD.											
Cereals:											
Hominy (94)	10,433	5,443	3,062	61	[illegible]	882	1,928	39	17	366	18
Oatmeal (113)	9,753	1,361	7,485	195	[illegible]	786	907	24	11	95	9
Rice (124)	12,360	9,752	2,608	31		316					
Wheat breakfast food (127)	4,989	340	2,835	[illegible]	11	388	1,814	33	7	249	36
Wheat breakfast food (128)	4,876		2,835	71	11	442	2,041	51	8	318	42
Bread (133)	90,153	2,495	75,238	6,927	979	39,983	12,360	1,137	161	6,563	14
Cake (137)	2,494		1,[illegible]	114	83	1,032	680	43	31	387	27
Crackers (134)	4,083		3,[illegible]	378	351	2,819	227	22	21	166	6
Gingerbread and cakes (141)	5,897		4,990	289	449	3,169	907	53	82	576	15
Total	145,033	19,391	104,783	8,117	2,002	49,517	20,864	1,402	338	8,720	14
Sugar (146)	4,[illegible]88		2,268			2,268					

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 384—Continued.											
VEGETABLE FOOD—continued.											
Vegetables:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Beans, kidney (153)	11,000	7,031	3,515	250	21	664	454	32	3	86	4
Beans, baked (150)	5,330	2,041	3,289	319	210	828	.....	.....	.....	.....	.....
Beans, baked (151)	5,330	3,288	1,588	141	94	419	454	40	27	120	9
Cabbage (166)	4,990	.....	4,536	86	18	299	454	9	2	30	9
Kale (181)	3,629	.....	3,175	44	121	159	454	6	17	23	13
Pickles, cucumber (190)	3,062	.....	2,608	13	8	70	454	2	1	12	15
Potatoes, steamed (207)	28,917	14,289	12,360	235	12	1,854	2,268	43	2	340	8
Soup, bean (239)	68,040	.....	65,318	1,372	131	4,376	2,722	57	5	182	4
Soup, vegetable (253)	22,681	.....	21,093	148	.....	1,266	1,588	11	.....	95	7
Sauce, rhubarb (234)	4,422	1,473	2,949	15	18	681	.....	.....	.....	.....	.....
Tomatoes (268)	4,423	2,268	1,361	22	19	171	794	13	11	100	18
Total	161,824	30,390	121,792	2,645	652	10,787	9,642	213	68	988	6
Fruits, etc.:											
Jelly, apple (292)	7,711	3,402	3,175	10	.....	2,223	1,134	3	.....	794	15
Sauce, apple (300)	4,195	1,587	2,268	9	11	687	340	1	2	103	8
Sauce, peach (307)	11,226	6,009	4,990	95	20	1,587	227	4	1	72	2
Sauce, prune (291)	12,134	4,763	6,917	55	.....	2,829	454	4	.....	186	4
Total	35,266	15,761	17,350	169	31	7,326	2,155	12	3	1,155	6
Total vegetable food	344,396	65,542	246,193	10,931	2,685	69,898	32,661	1,627	409	10,863	9
MISCELLANEOUS FOOD.											
Macaroni and tomato (334)	5,217	2,268	2,949	103	15	566	.....	.....	.....	.....	.....
Pie, evaporated-peach (349)	6,804	.....	6,804	231	1,198	2,620	.....	.....	.....	.....	.....
Pie, evaporated-apple (345)	5,103	.....	4,649	144	456	1,990	454	14	44	194	9
Pudding, bread (353)	8,732	680	5,103	133	117	1,128	2,949	77	68	652	34
Stew, beef (316)	15,195	6,690	7,258	719	668	508	1,247	123	115	87	8
Total	41,051	9,638	26,763	1,330	2,454	6,812	4,650	214	227	933	11
Total food	428,993	89,241	298,698	16,775	17,447	76,994	41,054	2,858	1,708	11,879	10

Dietary study No. 385.

ANIMAL FOOD.											
Beef, veal, and mutton:											
Boiled (9)	4,309	.....	4,082	1,196	1,351	.....	227	67	75	.....	5
Beefsteak (26)	3,289	.....	3,062	759	842	.....	227	56	62	.....	7
Corned (31)	4,536	.....	4,536	1,333	1,007	.....	.....	.....	.....	.....	.....
Roast (14)	3,856	.....	3,856	798	841	.....	.....	.....	.....	.....	.....
Total	15,990	.....	15,536	4,086	4,041	.....	454	123	137	.....	3
Pork:											
Sausage (62)	2,949	.....	2,949	593	1,631	47	.....	.....	.....	.....	.....
Shoulder (57)	4,536	1,814	2,722	555	738	.....	.....	.....	.....	.....	.....
Total	7,485	1,814	5,671	1,148	2,369	47	.....	.....	.....	.....	.....
Fish:											
Herring (73)	7,824	.....	7,824	2,120	2,230	477	.....	.....	.....	.....	.....
Mackerel (80)	2,949	.....	2,949	773	826	.....	.....	.....	.....	.....	.....
Total	10,773	.....	10,773	2,893	3,056	477	.....	.....	.....	.....	.....
Butter (88)	7,711	.....	7,711	77	6,554	.....	.....	.....	.....	.....	.....
Total animal food	41,959	1,814	39,691	8,204	16,020	524	454	123	137	.....	1
VEGETABLE FOOD.											
Cereals:											
Hominy (94)	9,979	5,897	4,082	82	37	776	.....	.....	.....	.....	.....
Oatmeal (113)	9,639	2,381	5,897	153	71	619	1,361	35	16	143	14
Rice (124)	12,247	7,371	4,876	59	.....	590	.....	.....	.....	.....	.....
Wheat breakfast food (127)	4,876	2,381	2,495	45	10	342	.....	.....	.....	.....	.....
Wheat breakfast food (128)	4,536	2,041	2,495	62	10	389	.....	.....	.....	.....	.....
Bread (133)	87,431	3,741	78,473	7,220	1,020	41,669	5,217	480	68	2,770	6
Crackers (134)	3,742	453	3,289	322	299	2,404	.....	.....	.....	.....	.....
Cake (137)	2,495	.....	2,495	157	115	1,420	.....	.....	.....	.....	.....
Gingerbread and cakes (141)	5,783	.....	5,670	329	510	3,600	113	7	10	72	2
Total	140,728	24,265	109,772	8,429	2,072	51,809	6,691	522	94	2,985	5
Sugar (146)	2,268	.....	2,268	.....	.....	2,268	.....	.....	.....	.....	.....
Vegetables:											
Beans, kidney (153)	9,185	.....	8,505	604	51	1,607	680	49	4	129	7
Beans, baked (150)	4,989	907	3,969	385	254	1,000	113	11	7	28	3
Beans, baked (151)	5,670	.....	4,763	424	281	1,257	907	81	54	239	16
Cabbage (166)	4,536	.....	4,536	86	18	299	.....	.....	.....	.....	.....
Kale (181)	3,743	.....	3,289	46	125	164	454	6	17	23	12
Potatoes, steamed (207)	26,421	7,144	17,803	338	18	2,670	1,474	28	1	221	6
Pickles, cucumber (190)	3,062	794	1,814	9	5	49	454	2	1	12	15

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 385—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Soup, bean (239)	68,040	.....	68,040	1,429	136	4,559	.....	.....	.....	.....	.....
Soup, vegetable (253)	22,680	.....	22,680	159	.....	1,361	.....	.....	.....	.....	.....
Sauce, rhubarb (234)	4,309	1,588	2,381	12	14	550	340	2	2	79	8
Tomatoes (268)	4,196	.....	3,289	53	46	414	907	15	13	114	22
Total	156,831	10,433	141,069	3,545	948	13,930	5,329	194	99	845	3
Fruits, etc.:											
Jelly, apple (292)	7,258	.....	6,124	18	.....	4,287	1,134	3	.....	794	16
Sauce, apple (300)	4,309	.....	4,196	17	21	1,271	113	.....	1	34	3
Sauce, peach (307)	10,773	3,402	5,783	110	23	1,839	1,588	30	6	505	15
Sauce, prune (291)	11,566	1,134	10,092	81	.....	4,128	340	3	.....	139	3
Total	33,906	4,536	26,195	226	44	11,525	3,175	36	7	1,472	9
Total vegetable food	333,733	39,234	279,304	12,200	3,064	79,532	15,195	752	200	5,302	5
MISCELLANEOUS FOOD.											
Macaroni and tomato (334)	4,649	453	3,062	107	15	588	1,134	40	6	218	24
Pie, evaporated-apple (345)	4,536	.....	4,536	141	444	1,941	.....	.....	.....	.....	.....
Pie, evaporated-peach (349)	4,536	.....	4,536	154	798	1,746	.....	.....	.....	.....	.....
Pudding, bread (353)	8,505	1,474	6,124	159	141	1,353	907	24	21	200	11
Stew, beef (316)	14,742	2,381	11,000	1,089	1,012	770	1,361	135	125	95	9
Total	36,968	4,308	29,258	1,650	2,410	6,398	3,402	199	152	513	9
Total food	412,660	45,356	348,253	22,054	21,494	86,454	19,051	1,074	489	5,815	5
Dietary study No. 386.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Beefsteak (26)	2,722	.....	2,722	675	749	.....	.....	.....	.....	.....	.....
Boiled (9)	4,309	227	4,082	1,196	1,351	.....	.....	.....	.....	.....	.....

Corned (31)	4,990	1,361	3,629	1,067	806	.....	.....	.....	.....	.....	.....
Roast (14)	4,422	.....	3,515	728	766	.....	907	188	198	.....	21
Total	16,443	1,588	13,948	3,666	3,672	.....	907	188	198	.....	6
Pork:											
Sausage (62)	2,722	.....	2,722	547	1,505	44	.....	.....	.....	.....	.....
Shoulder (57)	4,763	2,268	2,495	509	676	.....	.....	.....	.....	.....	.....
Total	7,485	2,268	5,217	1,056	2,181	44	.....	.....	.....	.....	.....
Fish:											
Herring (73)	7,598	1,927	5,217	1,414	1,487	318	454	123	129	28	6
Mackerel (80)	2,722	.....	2,722	713	762	.....	.....	.....	.....	.....	.....
Total	10,320	1,927	7,939	2,127	2,249	318	454	123	129	28	4
Butter (88)	7,711	.....	7,711	77	6,554	.....	.....	.....	.....	.....	.....
Total animal food	41,959	5,783	34,815	6,926	14,656	362	1,361	311	327	28	3
VEGETABLE FOOD.											
Cereals:											
Hominy (94)	9,298	2,154	6,690	134	60	1,271	454	9	4	86	5
Oatmeal (113)	9,753	.....	9,753	254	117	1,024	.....	.....	.....	.....	.....
Rice (124)	10,546	1,814	7,371	88	.....	892	1,361	16	.....	165	13
Wheat breakfast food (127)	5,217	2,495	2,722	49	11	373	.....	.....	.....	.....	.....
Wheat breakfast food (128)	4,423	.....	4,196	105	17	655	227	6	1	35	5
Bread (133)	87,204	12,019	62,257	5,728	809	33,058	12,928	1,189	168	6,865	15
Cake (137)	2,495	.....	2,041	129	94	1,161	454	29	21	258	18
Crackers (134)	3,288	226	2,949	289	268	2,156	113	11	10	83	3
Ginger cakes and bread (141)	5,897	.....	5,897	342	531	3,745	.....	.....	.....	.....	.....
Total	138,121	18,708	103,876	7,118	1,907	44,335	15,537	1,260	204	7,492	11
Sugar (146)	2,268	.....	2,268	.....	.....	2,268	.....	.....	.....	.....	.....
Vegetables:											
Beans, kidney (153)	9,526	1,361	7,711	547	46	1,457	454	32	3	86	5
Beans, baked (150)	5,103	.....	4,990	484	319	1,257	113	11	7	28	2
Beans, baked (151)	6,123	.....	5,783	515	341	1,527	340	30	20	90	6
Cabbage (166)	4,763	.....	4,763	90	19	314	.....	.....	.....	.....	.....
Kale (181)	3,629	.....	3,629	51	138	181	.....	.....	.....	.....	.....
Pickles, cucumber (190)	2,608	453	1,701	9	5	46	454	2	1	12	17
Potatoes, steamed (207)	26,989	8,618	17,464	332	17	2,620	907	17	1	136	3
Sauce, rhubarb (234)	4,309	.....	4,309	22	26	995	.....	.....	.....	.....	.....
Soup, bean (239)	68,040	.....	68,040	1,429	136	4,559	.....	.....	.....	.....	.....
Soup, vegetable (253)	22,680	.....	22,680	159	.....	1,361	.....	.....	.....	.....	.....
Tomatoes (268)	3,742	.....	3,742	60	52	471	.....	.....	.....	.....	.....
Total	157,512	10,432	144,812	3,698	1,099	14,788	2,268	92	32	352	1

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 386—Continued.											
VEGETABLE FOOD—continued.											
Fruits, etc.:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Jelly, apple (292)	7,371	1,588	4,876	15	.....	3,413	907	3	.....	635	1
Sauce, apple (300)	4,309	.....	4,082	16	20	1,237	227	1	1	69	52
Sauce, peach (307)	10,206	.....	7,031	134	28	2,236	3,175	60	13	1,010	31
Sauce, prune (291)	10,207	.....	9,753	78	.....	3,989	454	4	.....	186	4
Total	32,093	1,588	25,742	243	48	10,875	4,763	68	14	1,900	15
Total vegetable food	329,994	30,728	276,698	11,059	3,054	72,266	22,568	1,420	250	9,744	7
MISCELLANEOUS FOOD.											
Macaroni and tomato (334)	5,217	681	4,536	159	23	871	.....	.....	.....	.....	.....
Pie, evaporated-apple (351)	4,536	.....	4,536	141	445	1,941	.....	.....	.....	.....	.....
Pie, evaporated-peach (349)	4,536	.....	4,536	154	798	1,746	.....	.....	.....	.....	.....
Pudding, bread (353)	7,938	3,062	4,309	112	99	952	567	15	13	125	7
Stew, beef (316)	15,650	.....	14,289	1,415	1,315	1,000	1,361	135	125	95	9
Total	37,877	3,743	32,206	1,981	2,680	6,510	1,928	150	138	220	5
Total food	409,830	40,254	343,719	19,966	20,390	79,138	25,857	1,881	715	9,992	6
Dietary study No. 387.											
ANIMAL FOOD.											
Beef, veal, and mutton:											
Beefsteak (26)	6,463	1,700	3,969	984	1,031	.....	794	197	218	.....	12
Hamburg steak (27)	1,701	.....	1,361	350	157	39	340	87	39	10	20
Roast (16)	794	.....	794	207	291	.....	.....	.....	.....	.....	.....
Roast (15)	3,515	453	3,062	701	735	.....	.....	.....	.....	.....	.....
Veal cutlets (36)	2,041	453	1,361	363	229	.....	227	61	38	.....	14
Veal roast (37)	2,608	794	1,814	497	109	.....	.....	.....	.....	.....	.....
Total	17,122	3,400	12,361	3,102	2,612	39	1,361	345	295	10	8

Pork:											
Bacon (52)	2,041	.....	1,361	297	774	.....	680	148	387	.....	33
Ham (53)	2,495	454	1,814	385	533	.....	227	48	67	.....	9
Sausage (61)	1,474	.....	1,134	279	682	24	340	84	204	7	23
Shoulder (57)	567	.....	567	116	154	.....	.....	.....	.....	.....	.....
Shoulder (56)	2,722	1,588	1,134	194	306	.....	.....	.....	.....	.....	.....
Total	9,299	2,042	6,010	1,271	2,449	24	1,247	280	658	7	13
Fish:											
Herring (73)	454	.....	454	123	129	28	.....	.....	.....	.....	.....
Shad (74)	1,701	.....	1,701	153	201	32	.....	.....	.....	.....	.....
Total	2,155	.....	2,155	276	330	60	.....	.....	.....	.....	.....
Milk (91)	38,102	.....	38,102	1,257	1,524	1,905	.....	.....	.....	.....	.....
Butter (88)	3,175	1,559	1,616	16	1,374	.....	.....	.....	.....	.....	.....
Eggs, fried (86)	1,474	.....	1,474	200	290	.....	.....	.....	.....	.....	.....
Total animal food	71,327	7,001	61,718	6,122	8,579	2,028	2,608	625	953	17	4
VEGETABLE FOOD.											
Cereals:											
Mush, corn-meal (98)	794	.....	340	4	1	49	454	6	2	65	57
Oatmeal (113)	8,051	.....	4,195	109	50	440	3,856	100	46	405	48
Rice (122)	5,443	1,134	3,175	44	3	445	1,134	16	1	159	21
Wheat breakfast food (129)	1,247	.....	680	13	2	78	567	11	2	65	45
Bread (133)	30,164	8,732	17,010	1,565	221	9,032	4,422	407	57	2,348	15
Cake, cocoanut frosting (139)	1,588	.....	1,588	94	143	1,029	.....	.....	.....	.....	.....
Crackers (134)	3,288	453	2,722	267	248	1,990	113	11	10	83	3
Corn bread (132)	3,175	.....	1,474	87	162	559	1,701	100	187	645	54
Macaroni (143)	2,382	.....	794	26	17	125	1,588	52	33	251	67
Toast (136)	567	.....	567	65	9	347	.....	.....	.....	.....	.....
Total	56,699	10,319	32,545	2,274	856	14,094	13,835	703	338	4,021	24
Sugar (146)	7,711	.....	7,711	.....	.....	7,711	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (151)	3,629	.....	3,402	303	201	898	227	20	13	60	6
Beans, Lima (155)	1,815	.....	1,361	76	7	280	454	25	2	94	25
Cabbage (166)	2,268	.....	1,814	34	7	120	454	9	2	30	20
Onions, green (183)	1,134	.....	1,134	11	1	127	.....	.....	.....	.....	.....
Onions, fried (185)	1,020	.....	907	9	227	100	113	1	28	12	11
Potatoes, fried (222)	7,484	.....	3,742	94	311	805	3,742	94	1	805	50
Potatoes, boiled and browned (217)	4,422	.....	2,608	65	3	542	1,814	45	2	377	41
Potatoes, baked (203)	9,525	5,216	3,175	79	3	635	1,134	28	1	227	12
Potatoes, mashed and creamed (230)	2,495	.....	1,361	34	39	238	1,134	28	33	198	45
Potatoes, boiled (213)	10,432	4,989	3,629	83	.....	704	1,814	42	.....	352	17
Potato cakes (231)	1,475	.....	1,021	20	56	179	454	9	25	79	31
Potatoes, baked (204)	2,268	.....	907	23	1	189	1,361	34	1	283	60
Peas (189)	1,361	.....	794	31	8	93	567	22	6	66	42
Saratoga chips (233)	680	.....	680	46	271	318	.....	.....	.....	.....	.....

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 387—Continued.											
VEGETABLE FOOD—continued.											
Vegetables—Continued.	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per. ct.*
Sauce, rhubarb (234)	1,248	.....	794	4	5	183	454	2	3	105	36
Slaw (236)	1,021	.....	1,021	16	3	57	.....	.....	.....	.....	.....
Soup, vegetable (253)	13,834	.....	9,412	66	.....	565	4,422	31	.....	265	32
Soup, tomato (245)	3,175	.....	3,175	10	16	152	.....	.....	.....	.....	.....
Soup, bean (239)	3,743	.....	2,722	57	5	182	1,021	21	2	68	27
Lettuce (182)	1,361	.....	1,361	16	4	39	.....	.....	.....	.....	.....
Total	74,390	10,205	45,020	1,077	1,168	6,406	19,165	411	429	3,021	26
Fruits, etc.:											
Sauce, apple (300)	3,969	.....	3,289	13	16	997	680	3	3	206	17
Sauce, prune (290)	3,288	1,134	1,474	10	.....	506	680	5	.....	233	21
Sauce, peach (306)	1,701	.....	1,247	20	4	424	454	7	1	154	27
Total	8,958	1,134	6,010	43	20	1,927	1,814	15	4	593	20
Total vegetable food	147,758	21,658	91,286	3,394	2,044	30,138	34,814	1,129	771	7,635	24
MISCELLANEOUS FOOD.											
Chicken, baked and stuffed (320)	3,402	.....	3,175	692	346	121	227	49	25	9	7
Griddle cakes (331)	1,474	.....	1,361	88	31	506	113	7	3	42	8
Ham omelet (327)	2,041	.....	1,701	228	349	.....	340	46	70	.....	17
Ice cream (340)	4,990	.....	4,990	195	200	1,053	.....	.....	.....	.....	.....
Jelly, lemon (342)	3,403	.....	2,949	91	.....	519	454	14	.....	80	13
Muffins (335)	3,176	.....	2,722	269	425	1,059	454	45	71	177	14
Onions, creamed (343)	2,495	.....	1,361	16	24	67	1,134	14	20	56	46
Hash (309)	1,020	.....	907	106	218	88	113	13	27	11	11
Pie, lemon (347)	3,175	1,587	1,588	57	160	594	.....	.....	.....	.....	.....
Pie, evaporated-peach (349)	2,722	.....	2,722	93	479	1,048	.....	.....	.....	.....	.....
Pudding, floating island (362)	2,495	.....	2,268	107	102	433	227	11	10	43	9
Pudding, rice (364)	2,949	.....	2,495	95	82	404	454	17	15	74	15
Soup, clam (325)	2,949	.....	2,495	62	62	90	454	11	11	16	15
Stew, beef (316)	3,402	.....	1,588	157	146	111	1,814	180	167	127	53
Total	39,693	1,587	32,322	2,256	2,624	6,093	5,784	407	419	635	15
Total food	258,778	30,246	185,326	11,772	13,247	38,259	43,206	2,161	2,143	8,287	17

Dietary study No. 388.

ANIMAL FOOD.											
Beef, veal, and mutton:											
Beefsteak (26)	4,422	1,133	2,949	731	811	.....	340	84	94	.....	8
Hamburg steak (27)	1,134	.....	587	146	65	16	567	146	65	16	50
Roast (15)	2,381	680	1,701	390	408	.....	.....	.....	.....	.....	.....
Roast (16)	567	340	227	59	83	.....	.....	.....	.....	.....	.....
Veal cutlets (36)	1,134	680	454	121	76	.....	.....	.....	.....	.....	.....
Veal roast (37)	1,701	680	794	218	48	.....	227	62	14	.....	13
Total	11,339	3,513	6,692	1,665	1,481	16	1,134	292	173	16	10
Pork:											
Bacon (52)	1,361	.....	907	198	516	.....	454	99	258	.....	33
Ham (53)	1,587	113	1,361	289	400	.....	113	24	33	.....	7
Sausage (61)	907	340	454	112	273	10	113	28	68	2	12
Shoulder (57)	680	.....	680	139	184	.....	.....	.....	.....	.....	.....
Shoulder (55)	1,814	453	1,361	233	367	.....	.....	.....	.....	.....	.....
Total	6,349	906	4,763	971	1,740	10	680	151	359	2	11
Fish:											
Herring (73)	567	.....	567	154	162	35	.....	.....	.....	.....	.....
Shad (74)	1,134	.....	907	82	107	17	227	20	27	4	20
Total	1,701	.....	1,474	236	269	52	227	20	27	4	13
Milk (91)	43,546	.....	43,546	1,437	1,742	2,177	.....	.....	.....	.....	.....
Butter (88)	3,175	850	2,325	23	1,976	.....	.....	.....	.....	.....	.....
Eggs, fried (86)	793	.....	680	92	134	.....	113	15	22	.....	14
Total animal food	66,903	5,269	59,480	4,424	7,342	2,255	2,154	478	581	22	3
VEGETABLE FOOD.											
Cereals:											
Mush, corn-meal (98)	794	.....	340	4	1	49	454	6	2	65	57
Oatmeal (113)	8,161	.....	1,474	38	18	155	6,690	174	80	702	82
Rice (122)	1,815	.....	1,361	19	1	191	454	6	.....	64	25
Wheat breakfast food (129)	1,247	.....	113	2	.....	13	1,134	22	3	129	91
Bread (133)	22,000	12,927	7,285	689	97	3,975	1,588	146	21	843	7
Cake, cocoanut frosting (139)	1,020	.....	680	40	61	441	340	20	31	220	33
Crackers (134)	3,062	567	2,268	222	206	1,658	227	22	21	166	4
Corn bread (132)	2,154	453	794	47	87	301	907	54	100	344	42
Macaroni (143)	1,134	.....	340	11	7	54	794	26	17	125	70
Toast (136)	454	.....	454	52	7	278	.....	.....	.....	.....	.....
Total	41,844	13,947	15,309	1,124	485	7,115	12,588	476	275	2,658	30
Sugar (146)	4,536	.....	4,536	.....	.....	4,536	.....	.....	.....	.....	.....

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 388—Continued.											
VEGETABLE FOOD—continued.											
Vegetables:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Beans, baked (151)	2,721	.....	1,474	131	87	389	1,247	111	74	329	46
Beans, Lima (155)	1,134	.....	680	38	3	140	454	25	2	94	40
Cabbage (166)	1,134	226	454	9	2	30	454	9	2	30	40
Lettuce (182)	1,361	.....	907	11	3	26	454	5	1	13	33
Onions, green (183)	1,021	.....	1,021	10	1	114	.....	.....	.....	.....	.....
Onions, fried (185)	681	.....	454	5	114	50	227	2	57	25	33
Potatoes, fried (222)	4,876	.....	1,701	43	141	366	3,175	79	264	683	65
Potatoes, boiled and browned (217)	2,495	567	1,021	26	1	212	907	23	1	189	36
Potatoes, baked (203)	6,577	4,422	2,155	54	2	431	.....	.....	.....	.....	.....
Potatoes, mashed and creamed (230)	1,134	.....	794	20	23	139	340	9	10	60	30
Potatoes, boiled (213)	6,010	3,175	1,814	42	.....	352	1,021	23	.....	198	17
Potato cakes (231)	794	.....	227	5	12	40	567	11	31	99	71
Potatoes, baked (204)	2,268	907	1,361	34	1	283	.....	.....	.....	.....	.....
Peas (189)	1,474	.....	567	22	6	66	907	35	9	106	62
Sauce, rhubarb (234)	1,247	.....	680	3	4	157	567	3	3	131	45
Slaw (236)	1,020	.....	340	5	1	19	680	11	2	38	67
Saratoga chips (233)	567	.....	340	23	135	159	227	15	90	106	40
Soup, bean (239)	3,402	.....	3,402	71	7	228	.....	.....	.....	.....	.....
Soup, tomato (245)	3,402	.....	3,402	10	17	163	.....	.....	.....	.....	.....
Soup, vegetable (253)	12,360	.....	10,546	74	.....	633	1,814	13	.....	109	15
Total	55,678	9,297	33,340	636	560	3,997	13,041	374	546	2,210	23
Fruits, etc.:											
Sauce, apple (300)	2,608	.....	1,134	5	6	344	1,474	6	7	447	57
Sauce, peach (306)	1,361	.....	454	3	1	154	907	15	3	308	67
Sauce, prune (290)	2,949	1,134	1,361	10	.....	467	454	3	.....	156	15
Total	6,918	1,134	2,949	18	7	965	2,835	24	10	911	41
Total vegetable food	108,976	24,378	56,134	1,778	1,052	16,613	28,464	874	831	5,779	26
MISCELLANEOUS FOOD.											
Chicken, baked and stuffed (320)	2,608	.....	2,268	494	247	86	340	74	37	13	13
Griddle cakes (331)	1,247	.....	907	59	21	337	340	22	8	126	27

Ham omelet (327)	1,020	.....	680	91	139	.....	340	46	70	.....	33
Ice cream (340)	3,629	.....	3,629	142	145	766	.....	.....	.....	.....	.....
Hash (309)	1,701	.....	454	53	109	44	1,247	146	299	121	73
Jelly, lemon (342)	2,495	.....	2,268	70	.....	399	227	7	.....	40	9
Onions, creamed (343)	1,588	.....	1,134	14	20	56	454	5	8	22	29
Muffins (335)	2,495	1,020	1,021	101	159	397	454	45	71	177	18
Pie, lemon (347)	3,175	1,587	1,588	57	160	594	.....	.....	.....	.....	.....
Pie, evaporated-peach (349)	2,722	1,474	794	27	140	306	454	15	80	175	17
Pudding, floating island (362)	2,495	.....	2,268	107	102	433	227	11	10	43	9
Pudding, rice (364)	2,949	1,588	907	34	30	147	454	17	15	74	15
Stew, beef (316)	3,175	.....	907	90	83	63	2,268	225	209	159	71
Soup, clam (325)	2,835	.....	2,835	71	71	102	.....	.....	.....	.....	.....
Total	34,131	5,669	21,660	1,410	1,426	3,730	6,805	613	807	950	20
Total food	210,013	35,316	137,274	7,612	9,820	22,598	37,423	1,965	2,219	6,751	18
Dietary study No. 389.											
ANIMAL FOOD.											
Beef and veal:											
Roast (15)	4,309	2,608	1,361	312	327	.....	340	78	82	.....	8
Roast (16)	680	.....	567	148	208	.....	113	29	41	.....	17
Steak (26)	5,783	907	4,649	1,153	1,278	.....	227	56	62	.....	4
Steak, Hamburg (27)	1,588	.....	1,134	291	130	33	454	117	52	13	29
Veal cutlets (36)	1,814	907	907	242	152	.....	.....	.....	.....	.....	.....
Veal roast (37)	2,381	1,247	907	249	54	.....	227	62	14	.....	10
Total	16,555	5,669	9,525	2,395	2,149	33	1,361	342	251	13	8
Pork:											
Bacon, fried (52)	1,587	.....	680	148	387	.....	907	198	516	.....	57
Ham, fried (53)	2,268	284	1,984	421	583	.....	.....	.....	.....	.....	.....
Shoulder (57)	680	226	227	46	62	.....	227	46	62	.....	33
Shoulder, baked (55)	2,041	.....	2,041	349	551	.....	.....	.....	.....	.....	.....
Sausage, fried (61)	1,021	451	454	112	273	10	113	28	68	2	11
Total	7,597	964	5,386	1,076	1,856	10	1,247	272	646	2	16
Fish:											
Herring, fresh, fried (73)	907	.....	907	246	258	55	.....	.....	.....	.....	.....
Shad, broiled (74)	1,134	.....	907	82	107	17	227	20	27	.....	20
Total	2,041	.....	1,814	328	365	72	227	20	27	.....	11
Milk (91)	74,390	.....	74,390	2,455	2,976	3,720	.....	.....	.....	.....	.....
Butter (88)	3,175	2,495	680	7	578	.....	.....	.....	.....	.....	.....
Eggs, fried (86)	1,134	.....	1,134	154	223	.....	.....	.....	.....	.....	.....
Total animal food	104,892	9,128	92,929	6,415	8,147	3,835	2,835	634	924	15	3

TABLE 35.—*Amounts and composition of food provided, eaten, and wasted in the dietary studies*—Continued.

Kind of food.	Food provided.	Food returned.	Food served.								Proportion of provided food rejected.
			Eaten.				Wasted.				
			Amount.	Protein.	Fat.	Carbohydrates.	Amount.	Protein.	Fat.	Carbohydrates.	
Dietary study No. 389—Continued.											
VEGETABLE FOOD.											
Cereals:	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Grams.*	*Per ct.*
Bread, biscuit, etc. (133)	22,000	4,706	13,892	1,278	181	7,377	3,402	313	44	1,806	15
Cake, cocoanut frosting (139)	1,021	.....	1,021	60	92	662	.....	.....	.....	.....	.....
Corn bread (132)	2,155	794	454	27	50	172	907	54	100	344	42
Crackers (134)	3,515	226	3,289	322	299	2,404	.....	.....	.....	.....	.....
Macaroni, boiled (143)	1,587	.....	1,474	49	31	233	113	4	2	18	7
Mush, corn-meal (98)	681	.....	227	3	1	33	454	6	2	65	67
Oatmeal (113)	7,939	.....	2,949	77	35	310	4,990	130	60	524	63
Rice, boiled (122)	1,588	.....	454	6	.....	64	1,134	16	1	159	71
Toast (136)	454	227	227	26	4	139	.....	.....	.....	.....	.....
Wheat breakfast food (129)	1,247	.....	340	6	1	39	907	17	3	103	73
Total	42,187	5,953	24,327	1,854	694	11,433	11,907	540	212	3,019	28
Sugar (146)	6,804	.....	6,804	.....	.....	6,804	.....	.....	.....	.....	.....
Vegetables:											
Beans, baked (151)	3,062	.....	1,588	141	94	419	1,474	131	87	389	48
Beans, Lima, boiled (155)	1,361	.....	794	44	4	164	567	32	3	117	42
Peas, stewed (189)	1,928	.....	.....	.....	.....	.....	1,928	75	19	226	100
Cabbage, boiled (166)	1,587	.....	1,247	24	5	82	340	6	1	22	21
Lettuce (182)	1,361	.....	794	10	2	23	567	7	2	16	42
Onions, green (183)	907	453	454	5	.....	51	.....	.....	.....	.....	.....
Onions, fried (185)	1,134	.....	794	8	199	87	340	3	85	37	30
Potatoes, baked (204)	2,495	1,361	907	23	1	189	227	6	.....	47	9
Potatoes, boiled (213)	7,031	1,361	3,515	81	.....	681	2,155	50	.....	418	31
Potatoes, baked (203)	6,463	3,968	2,155	54	2	431	340	9	.....	68	5
Potatoes, boiled and browned (217)	3,175	.....	2,268	57	2	472	907	23	1	189	29
Potatoes, fried (222)	5,443	.....	2,041	51	169	439	3,402	85	282	731	63
Potatoes, mashed and creamed (230)	1,361	.....	567	14	16	99	794	20	23	139	58
Saratoga chips (233)	567	.....	454	31	181	212	113	8	45	53	20
Potato cakes (231)	1,021	.....	567	11	31	99	454	9	25	79	44
Rhubarb sauce (234)	1,248	.....	1,021	5	6	236	227	1	1	52	18
Slaw (236)	1,021	.....	454	7	1	25	567	9	2	32	56
Soup, bean (239)	3,289	.....	3,289	69	7	220	.....	.....	.....	.....	.....

Soup, tomato (245)	3,402	.....	3,402	10	17	163	.....	.....	.....	.....	.....
Soup, vegetable (253)	14,515	.....	14,515	102	.....	871	.....	.....	.....	.....	.....
Total	62,371	7,143	40,826	747	737	4,963	14,402	474	576	2,615	23
Fruits, etc.:											
Prunes, stewed (290)	3,061	.....	1,247	9	.....	428	1,814	13	.....	622	59
Sauce, apple (300)	3,289	.....	1,361	5	7	412	1,928	8	10	584	59
Sauce, peach (306)	1,588	.....	227	4	1	77	1,361	22	4	463	86
Total	7,938	.....	2,835	18	8	917	5,103	43	14	1,669	64
Total vegetable food	119,300	13,096	74,792	2,619	1,439	24,117	31,412	1,057	802	7,303	26
MISCELLANEOUS FOOD.											
Hash, baked (309)	1,701	.....	1,701	199	408	165	.....	.....	.....	.....	.....
Chicken, baked and stuffed (320)	2,835	.....	2,835	618	309	108	.....	.....	.....	.....	.....
Omelet, ham (327)	1,248	.....	1,021	137	209	.....	227	30	47	.....	18
Stew, beef (316)	3,855	.....	1,247	123	115	87	2,608	258	240	183	68
Soup, clam (325)	2,949	.....	2,949	74	74	106	.....	.....	.....	.....	.....
Griddle cakes (331)	1,361	.....	1,361	88	31	506	.....	.....	.....	.....	.....
Ice cream (340)	5,443	.....	5,443	212	218	1,148	.....	.....	.....	.....	.....
Jelly lemon (342)	3,402	.....	2,041	63	.....	359	1,361	42	.....	240	40
Muffins (335)	2,722	454	1,814	180	283	706	454	45	71	177	17
Pudding, floating island (362)	2,721	.....	1,814	85	82	346	907	43	41	173	33
Pudding, rice (364)	2,949	.....	2,722	103	90	441	227	9	7	37	8
Pie, lemon (347)	3,175	907	1,814	65	183	678	454	16	46	170	14
Onions, creamed (343)	1,701	.....	794	10	14	39	907	11	16	44	53
Pie, evaporated peach (349)	2,721	567	1,814	62	319	698	340	12	60	131	12
Total	38,783	1,928	29,370	2,019	2,335	5,387	7,485	466	528	1,155	19
Total food	262,975	24,152	197,091	11,053	11,921	33,339	41,732	2,157	2,254	8,473	16

FOOD ISSUED FROM STOREROOM FOR ONE YEAR.

The following table shows the kinds and amounts of food issued from the storeroom of the hospital to all the kitchens during the fiscal year July 1, 1901, to June 30, 1902, as shown by the ledger accounts of the storeroom. The quantities of different nutrients in each kind of food are also included in the table and the values for percentage composition by which they were computed, the latter being assumed from averages of analyses of similar materials.[a]

TABLE 36.—*Total weight, composition, and amount of nutrients in food issued from the storeroom for the year July 1, 1901, to June 30, 1902.*

Kind of food material.	Percentage composition.			Weight used.			
					Nutrients.		
	Protein.	Fat.	Carbohydrates.	Total food material.	Protein.	Fat.	Carbohydrates.
ANIMAL FOOD.							
Beef:	*Per ct.*	*Per ct.*	*Per ct.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Corned	14.3	23.8	.....	34,977.5	5,001.7	8,324.7	.....
Dried, canned	39.2	5.4	.....	1,544.8	605.5	83.4	.....
Gelatin	91.4	.1	.....	245.9	224.7	.2	.....
Liver	20.2	3.1	2.5	5,708.0	1,153.0	176.9	142.7
Liver pudding	20.2	3.1	2.5	39.5	8.0	1.2	1.0
Meat pudding	20.2	3.1	2.5	59.1	12.0	1.8	1.5
Oxtails, as canned	18.5	4.5	.....	68.1	12.6	3.1	.....
Soup, as bouillon	2.2	.1	.1	51.7	1.1	.....	.....
Tongue	11.9	19.2	.....	563.7	67.1	108.2	.....
Tripe	11.7	1.2	.2	181.4	21.3	2.2	.4
Unclassified	14.8	18.1	.....	144,544.5	21,392.6	26,162.6	.....
Veal, fresh, side	15.6	6.3	.....	9,334.1	1,456.1	588.0	.....
Lamb and mutton:							
Lamb, fresh, side	14.1	18.7	.....	10,244.7	1,444.5	1,915.8	.....
Mutton, fresh, side	13.0	24.0	.....	7,575.9	984.9	1,818.2	.....
Total	.....	.....	.....	215,138.9	32,385.1	39,186.3	145.6
Pork:							
Bacon	9.1	62.2	.....	10,170.1	925.5	6,325.7	.....
Fresh pork, side	8.0	49.0	.....	17,800.0	1,424.0	8,722.0	.....
Ham, potted	19.0	34.1	.....	21.0	4.0	7.1	.....
Ham, smoked	14.2	33.4	.....	15,243.5	2,164.6	5,091.3	.....
Loins	13.4	24.2	.....	2,038.6	273.1	493.3	.....
Pig's feet, fresh	4.1	6.9	.....	1,360.9	55.8	93.9	.....
Lard	.....	100.0	.....	22,247.4	.....	22,247.4	.....
Salt pork	1.9	86.2	.....	917.7	17.4	791.0	.....
Sausage, salted and smoked	15.6	31.9	.5	17,746.1	2,768.4	5,661.0	88.7
Shoulder, smoked	13.0	26.6	.....	35,611.1	4,629.5	9,472.6	.....
Total	.....	.....	.....	123,156.4	12,262.3	58,905.4	88.7
Poultry:							
Chicken	13.7	12.3	.....	10,282.7	1,408.7	1,264.7	.....
Duck	13.4	29.8	.....	477.1	63.9	142.2	.....
Turkey	16.1	18.4	.....	3,568.1	574.5	656.5	.....
Total	.....	.....	.....	14,327.9	2,047.1	2,063.4	.....
Fish, etc.:							
Clams, round, solids	10.6	1.1	5.2	695.5	73.7	7.6	36.2
Cod, salt	16.0	.4	.....	3,147.3	503.5	12.6	.....
Cod, shredded	28.6	.3	.....	2.0	.6	.....	.....
Herring	11.2	3.9	.....	3,083.5	345.4	120.2	.....
Herring, smoked	20.5	8.8	.....	190.9	39.1	16.8	.....
Lobster	5.9	.7	.2	24.5	1.4	.2	.....
Mackerel, salt	16.3	17.4	.....	13,112.1	2,137.3	2,281.5	.....
Oysters, in shell	1.2	.2	.7	25.6	.3	.....	.2
Oysters, solids	6.0	1.3	3.3	5,137.2	308.2	66.8	169.5
Salmon, canned	19.5	7.5	.....	554.1	108.1	41.5	.....
Salmon, smoked	19.3	14.0	.....	19.1	3.7	2.7	.....
Sardines	23.7	12.1	.....	36.1	8.6	4.4	.....
Shrimps, canned	25.4	1.0	.2	6.8	1.7	.1	.....
Shad	9.4	4.8	.....	1,418.1	133.3	68.1	.....
Unclassified fish	8.1	.5	.....	29,047.0	2,352.8	145.3	.....
Total	.....	.....	.....	56,499.8	6,017.7	2,767.8	205.9

[a] U. S. Dept. Agr., Office of Experiment Stations Bul. 28, revised.

TABLE 36.—*Total weight, composition, and amount of nutrients in food, etc.*—Continued.

Kind of food material.	Percentage composition.			Weight used.			
					Nutrients.		
	Protein.	Fat.	Carbohydrates.	Total food material.	Protein.	Fat.	Carbohydrates.
ANIMAL FOOD—continued.	*Per ct.*	*Per ct.*	*Per ct.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Eggs	13.1	9.3	.....	29,389.4	3,850.0	2,733.3	.....
Butter	1.0	85.0	.....	45,450.5	454.6	38,633.0	.....
Cheese:							
Cream	25.9	33.7	2.4	5,681.8	1,471.7	1,914.8	136.5
Edam	25.9	33.7	2.4	36.5	9.4	12.3	.8
Total	.....	.....	.....	5,718.3	1,481.0	1,927.1	137.3
Milk and cream:							
Condensed milk	8.8	8.3	54.1	323.2	28.4	26.8	174.8
Whole milk	3.3	4.0	5.0	401,194.5	13,239.5	16,047.7	20,059.7
Evaporated cream	9.6	9.3	11.2	2,908.3	279.2	270.5	325.7
Total	.....	.....	.....	404,426.0	13,547.1	16,345.0	20,560.2
Total animal food	.....	.....	.....	894,107.2	72,045.0	162,561.3	21,137.7
VEGETABLE FOOD.							
Cereals:							
Barley	8.5	1.1	77.8	898.6	76.4	9.9	699.1
Buckwheat flour	6.4	1.2	77.9	818.2	52.4	9.8	637.4
Corn meal	7.1	1.3	78.4	6,753.4	479.5	87.8	5,294.8
Chocolate wafers	12.9	48.7	30.3	6.8	.8	3.3	2.0
Crackers, cream	9.7	12.1	69.7	174.1	16.9	21.0	121.3
Crackers, reception	10.6	12.7	68.5	75.9	8.0	9.6	52.0
Crackers, soda	9.8	9.1	73.1	13,575.9	1,330.4	1,235.5	9,924.0
Wheat breakfast food	11.0	1.4	76.3	2.3	.3	.....	1.7
Ginger cakes	6.5	8.6	76.0	1,753.6	114.0	150.8	1,332.8
Ginger snaps	6.5	8.6	76.0	545.4	35.5	46.9	414.5
Cereal breakfast food	11.7	1.2	79.9	17.7	2.1	.2	14.1
Hominy	8.3	.6	79.0	4,764.6	395.5	28.6	3,764.0
Macaroni	13.4	.9	74.1	2,322.3	311.2	20.9	1,720.8
Oats, rolled	16.7	7.3	66.2	6,453.7	1,077.8	471.3	4,272.3
Pop corn	10.7	5.0	78.7	11.4	1.2	.6	8.9
Rice	8.0	.3	79.0	7,764.5	616.3	23.1	6,086.7
Rice, flaked	7.9	.4	81.9	75.5	6.0	.3	61.8
Shredded wheat	10.5	1.4	77.9	48.7	5.1	.7	37.8
Unclassified breakfast foods	12.1	1.8	75.2	4,015.0	485.8	71.7	3,019.3
Vanilla cakes	6.6	14.0	71.6	415.0	27.4	58.1	297.1
Vermicelli	10.9	2.0	72.0	21.6	2.4	.5	15.5
Wheat flour, Graham	13.3	2.2	71.4	2,605.9	346.6	57.3	1,860.6
Wheat breakfast food	13.6	1.9	71.8	4,154.6	565.0	79.1	2,983.0
Zwieback	9.8	9.9	73.5	8.2	.8	.8	6.0
Wheat flour	11.4	1.0	75.1	282,863.6	32,246.5	2,828.7	212,430.8
Total	.....	.....	.....	340,086.5	38,203.9	5,216.5	255,058.3
Sugars, starches, etc.:							
Candy	.....	.....	96.0	519.1	.....	.....	498.3
Chocolate	12.9	48.7	30.3	184.8	24.1	90.0	56.0
Cocoa	21.6	28.9	37.7	239.5	51.9	68.9	89.9
Honey	.4	.....	81.2	226.8	.1	.....	184.3
Molasses	.....	.....	70.0	10,461.0	.....	.....	7,322.9
Olive oil	.....	100.0	.....	123.9	.....	123.9	.....
Sirup	.....	.....	70.0	10,404.7	.....	.....	7,283.3
Sirup, maple	.....	.....	71.4	296.6	.....	.....	211.7
Corn starch	.....	.....	90.0	795.5	.....	.....	715.9
Sugar, brown	.....	.....	95.0	212.3	.....	.....	201.6
Sugar, cut-loaf	.....	.....	100.0	872.9	.....	.....	872.9
Sugar, granulated	.....	.....	100.0	115,565.7	.....	.....	115,565.7
Sugar, powdered	.....	.....	100.0	785.9	.....	.....	785.9
Tapioca	.4	.1	88.0	352.5	1.5	.4	310.2
Total	.....	.....	.....	141,041.2	77.6	283.3	134,098.8
Vegetables:							
Asparagus	1.8	.2	3.3	315.5	5.7	.6	10.4
Beans, Lima	3.2	.3	9.9	1,660.2	53.1	5.0	164.4
Beans, string	2.1	.3	6.9	1,548.0	32.5	4.6	106.8
Beets	1.3	.1	7.7	5,638.0	73.3	5.6	434.1
Cabbage	1.4	.2	4.8	68,802.3	963.2	137.6	3,302.5

TABLE 36.—*Total weight, composition, and amount of nutrients in food, etc.*—Continued.

Kind of food material.	Percentage composition.			Weight used.			
					Nutrients.		
	Protein.	Fat.	Carbohydrates.	Total food material.	Protein.	Fat.	Carbohydrates.
VEGETABLE FOOD—cont'd.							
Vegetables—Continued.	*Per ct.*	*Per ct.*	*Per ct.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Carrots	0.9	0.2	7.4	1,203.9	10.8	2.4	89.1
Cauliflower	1.8	.5	4.7	33.6	.6	.2	1.6
Celery	.9	.1	2.6	2,611.8	23.5	2.6	67.6
Corn, green	1.2	.4	7.7	14,752.5	177.1	59.0	1,136.0
Cucumbers	.7	.2	2.6	2,150.1	15.1	4.3	55.9
Eggplant	1.2	.3	5.1	2,686.5	32.3	8.0	137.0
Kale	1.4	.2	4.8	12,364.8	173.1	24.7	593.5
Lettuce	1.0	.2	2.5	980.9	9.8	2.0	24.5
Onions, dried	1.4	.3	8.9	16,999.5	238.0	50.9	1,510.0
Onions, green	.5	.1	5.5	3,533.3	17.7	3.5	194.3
Oyster plant	1.3	.1	10.8	886.9	11.5	3.5	95.8
Parsnips	1.3	.4	10.8	6,370.9	82.8	25.5	688.0
Peas, green	3.6	.2	9.8	1,672.7	60.2	3.3	163.9
Potatoes, Irish	1.8	.1	14.7	211,329.7	3,804.0	211.4	31,065.5
Peppers, green	6.2	3.4	26.0	345.5	21.4	11.7	89.8
Pumpkins	.5	.1	2.6	15.9	.1	.....	.4
Radishes	.9	.1	4.0	6,105.6	55.0	6.1	244.2
Rhubarb	.4	.4	2.2	2,707.7	10.8	10.8	59.6
Sauerkraut	1.7	.5	3.8	3,454.5	58.7	17.3	131.3
Spinach	2.1	.3	3.2	439.8	9.2	1.3	14.1
Squash	.7	.2	4.5	31,904.1	223.3	63.8	1,435.7
Sweet potatoes	1.4	.6	21.9	28,737.4	402.3	172.4	6,293.5
Tomatoes	.9	.4	3.9	15,047.7	135.4	60.2	586.9
Turnips	.9	.1	5.7	30,380.0	273.4	30.4	1,731.6
Beans, Lima, dried	18.1	1.5	65.9	2,114.5	382.7	31.7	1,393.5
Beans, kidney, dried	18.1	1.5	65.9	1,393.2	252.2	20.9	918.1
Beans, white-pea, dried	22.5	1.8	59.6	18,400.0	4,140.0	331.2	10,966.4
Corn, canned	2.8	1.2	19.0	6,812.2	190.7	81.7	1,294.3
Mushrooms, canned	3.5	.4	6.8	15.9	.5	.1	1.1
Peas, canned	3.6	.2	9.8	4,848.3	174.5	9.7	475.1
Peas, split	24.6	1.0	62.0	4,828.2	1,187.7	48.3	2,993.5
Pumpkin, canned	.8	.2	6.7	38.2	.3	.1	2.6
Rhubarb, canned	.6	.7	3.6	7,889.5	47.3	55.2	284.0
Squash, canned	.9	.5	10.5	1,489.1	13.4	7.5	156.4
Tomatoes, canned	1.2	.2	4.0	35,781.1	429.4	71.5	1,431.2
Tomato soup, canned	1.8	1.1	5.6	635.5	11.5	7.0	35.6
Total	.....	.....	.....	558,925.0	13,804.1	1,593.6	70,383.1
Fruits, berries, and nuts:							
Apricots	1.0	.....	12.6	38.2	.4	.....	4.8
Apples	.3	.3	10.8	7,823.9	23.5	23.5	845.0
Bananas	.8	.4	14.3	1,307.5	10.4	5.2	187.0
Blackberries	1.3	1.0	10.9	10,835.5	140.9	108.4	1,181.1
Cantaloupes	.3	.....	4.6	19,028.9	57.1	.....	875.3
Cherries	.9	.8	15.9	10,029.1	90.3	80.2	1,594.6
Citron, dried	.5	1.5	78.1	208.5	1.0	3.1	162.9
Cranberries	.4	.6	9.9	274.1	1.1	1.6	27.1
Currants	1.5	.....	12.8	190.9	2.9	.....	24.5
Crab apples	.3	.3	10.8	57.3	.2	.2	6.2
Damsons	.9	.....	19.1	63.6	.6	.....	12.1
Figs, fresh	1.5	.....	18.8	359.1	5.4	.....	67.5
Grapes	1.0	1.2	14.4	14,452.7	144.5	173.5	2,081.2
Grapes, Malaga	1.0	1.2	14.4	202.3	2.0	2.4	29.1
Grapefruit	.6	.1	8.5	42.9	.3	.....	3.6
Huckleberries	.6	.6	16.6	374.7	2.2	2.2	62.2
Jelly, apple	.3	.....	70.0	4,936.4	14.8	.....	3,455.5
Lemons	.7	.5	5.9	3,484.8	24.4	17.4	205.6
Olives	.8	20.2	8.5	182.5	1.4	36.9	15.5
Oranges	.6	.1	8.5	3,105.5	18.6	3.1	264.0
Peaches, fresh	.5	.1	7.7	1,363.6	6.8	1.4	105.0
Pears	.5	.4	12.7	4,636.4	23.2	18.5	588.8
Pineapple	.4	.3	9.7	1,549.5	6.2	4.6	150.3
Plums	.9	.....	19.1	50.9	.4	.....	9.7
Raspberries	1.7	1.0	12.6	245.5	4.2	2.5	30.9
Strawberries	.9	.6	7.0	5,685.0	51.2	34.1	398.0
Watermelons	.2	.1	2.7	22,180.9	44.4	22.2	598.8
Whortleberries	.7	3.0	13.5	66.6	.5	2.0	9.0
Fruits, dried:							
Apples, evaporated	1.6	2.2	66.1	6,096.8	97.4	134.1	4,030.0
Currants, dried	2.4	1.7	74.2	1,336.8	32.1	22.7	991.9
Dates	1.9	2.5	70.6	4.5	.1	.1	3.2
Figs	4.3	.3	74.2	23.9	1.0	.1	17.7

TABLE 36.—*Total weight, composition, and amount of nutrients in food, etc.*—Continued.

Kind of food material.	Percentage composition.			Weight used.			
					Nutrients.		
	Protein.	Fat.	Carbohydrates.	Total food material.	Protein.	Fat.	Carbohydrates.
VEGETABLE FOOD—cont'd.							
Fruits, dried—Continued.	*Per ct.*	*Per ct.*	*Per ct.*	*Kilograms.*	*Kilograms.*	*Kilograms.*	*Kilograms.*
Peaches, evaporated	4.7	1.0	62.5	10,194.1	479.1	102.0	6,371.3
Prunes, dried	1.8	.....	62.2	9,113.2	164.0	.....	5,668.4
Raisins	2.3	3.0	68.5	2,280.9	52.5	68.4	1,562.4
Nuts:							
Almonds	11.5	30.2	9.5	24.1	2.8	7.3	2.3
Cocoanuts	2.9	25.9	14.3	40.5	1.2	10.5	5.8
Cocoanut, shredded	6.3	57.4	31.5	61.7	3.9	35.4	19.5
Nuts, mixed	7.9	31.5	6.7	504.5	39.9	159.0	33.8
Walnuts, black	7.2	14.6	3.0	20.9	1.5	3.0	.6
Walnuts, English	6.9	26.6	6.8	2.7	.2	.7	.2
Total	.....	.....	.....	142,481.4	1,554.5	1,086.3	31,702.4
Beverages, condiments, etc.:							
Catsup	1.5	.2	12.3	56.6	.9	.1	7.0
Horse-radish	1.4	.2	10.5	15.2	.2	.....	1.6
Mustard, German	4.8	5.6	3.7	35.0	1.6	2.0	1.3
Pickles, chowchow	1.1	.4	4.0	52.7	.6	.2	2.1
Pickles, cucumber	.5	.3	2.7	2,897.8	14.5	8.7	78.2
Pickles, mixed	1.1	.4	4.0	272.7	3.0	1.1	10.9
Yeast	11.7	.4	21.0	717.4	84.0	2.9	150.6
Total	.....	.....	.....	4,047.4	104.8	15.0	251.7
Total vegetable food	.....	.....	.....	1,186,581.5	53,744.9	8,194.7	491,494.3
Total food	.....	.....	.....	2,080,688.7	125,789.9	170,756.0	512,632.0

PERCENTAGE COMPOSITION OF FOODS USED.

Table 37 below shows the percentage composition assumed for each article of food used in the studies herein reported. In the case of food materials eaten in the uncooked state—for instance, bananas, celery, etc.—the values used are averages of analyses of similar materials taken from a previous publication of this Office.[a] In the case of most of the cooked foods the percentage composition was computed from the weight of the cooked food and the weight and composition of the raw materials, as explained on page 15 preceding. In a few cases, through lack of time or because such a course might have interfered with the work of the kitchen employees, it was not possible to take weighings of the ingredients used in preparing the foods, and it was necessary to make use of computed or determined analyses of similar foods made for other purposes.

The reference numbers in the column at the left of the table correspond with those given in parentheses in connection with the materials in Table 35, and serve to indicate the values used in calculating the quantities of nutrients in each. In some cases the values used for such calculation were individual computations of composition, and in others they were averages of several such computations, those values being selected which were believed to correspond most closely to the food material as eaten.

The various food materials have been grouped as usual under the different kinds of animal and vegetable food. Those materials that contained different kinds of food materials and could therefore not be easily classified are grouped as miscellaneous foods. In the case of a few of the articles a brief explanation seems necessary.

[a] U. S. Dept. Agr., Office of Experiment Stations Bul. 28.

STEAKS.—The average of all cuts of steak was used in this set of studies for the reason that at this institution the cuts of steak were not as sharply defined as in ordinary butchers' shops, and hence, while classed perhaps as rib, a lot of steaks might also contain some sirloin and round.

BAKED FRESH SHAD was assumed to have the same composition as baked fresh haddock, as the recipe by which the food was prepared was not obtained.

HAM OMELET.—This article as served in these studies contained very little ham, but was mostly eggs. As no recipe was obtainable, the omelet was assumed to have the same percentage composition as scrambled eggs.

CLAM SOUP.—No recipe was obtained. It was believed, however, that this article would not be much different in nutritive value from oyster soup, so the percentage composition of this was therefore used for the clam soup.

WHEAT BREAKFAST FOOD.—Two different kinds of such breakfast foods were used during these studies.

BREAD, BISCUITS, AND ROLLS.—The percentage composition used for this class of articles is the average for all kinds of bread as found by actual analysis.

BREAD DRESSING FOR MEAT.—This was mostly bread. No weighing of the raw ingredients nor of the cooked material were made, but as the quantities used were relatively extremely small it is believed that no appreciable error was introduced by assuming it to be of the same percentage composition as bread.

BAKED BEANS.—A number of weighings of raw and cooked materials were obtained for this food, as the percentage composition is apt to vary widely.

STEWED CORN.—Canned corn was prepared in several different ways by the addition of various ingredients.

FRIED ONIONS.—In computing the composition of this dish the amount of fat used was assumed.

FRITTERS.—The very small quantity of this article of food made it seem unnecessary to obtain any weighings of the raw materials used, and fritters were assumed to have the same percentage composition as bread.

CELERY SALAD.—This salad was composed of celery, with a mayonnaise dressing of unknown composition. As the amount of this dressing was extremely small, the celery only was considered, and the percentage composition of the edible portion of celery was assumed.

TABLE 37.—*Percentage composition of foods used in the dietary studies.*

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	ANIMAL FOOD.			
	Beef:	*Per cent.*	*Per cent.*	*Per cent.*
1	Boiled, as purchased	15.1	27.5	.....
2	Do	18.6	22.8	.....
3	Average, Nos. 1 and 2	16.9	25.2	.....
4	Boiled, edible portion	30.8	37.7	.....
5	Do	30.5	30.6	.....
6	Do	31.8	28.3	.....
7	Do	24.1	35.8	.....
8	Do	26.9	19.0	.....
9	Average, Nos. 4–7	29.3	33.1	.....
10	Liver, fried with flour and butter	28.6	22.9	28.6
11	Liver, plain	26.0	15.5	2.0
12	Roast, as purchased	23.3	22.5	.....
13	Do	22.5	25.5	.....
14	Roast, with gravy, as purchased	20.7	21.8	.....
15	Average, Nos. 12 and 13	22.9	24.0	.....
16	Roast, edible portion	26.1	36.6	.....
17	Roast, with gravy, edible portion	23.8	25.0	.....
18	Steak, rib, fried, edible portion	23.4	37.4	.....
19	Do	22.6	31.4	.....
20	Steak, rib and loin, fried	21.3	26.4	.....
21	Steak, sirloin, fried	26.2	27.7	.....
22	Steak, round, fried	26.3	17.5	.....
23	Steak, round and sirloin, fried	23.9	28.7	.....
24	Steak, round, fried	30.2	20.2	.....

TABLE 37.—*Percentage composition of foods used in the dietary studies*—Continued.

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	ANIMAL FOOD—continued.			
	Beef—Continued.	*Per cent.*	*Per cent.*	*Per cent.*
25	Average, Nos. 22 and 23	25.1	23.1	.....
26	Average, Nos. 18–24	24.8	27.5	.....
27	Steak, Hamburg	25.7	11.5	2.9
28	Corned, as purchased	22.9	17.3	.....
29	Corned, edible portion	31.3	52.4	.....
30	Do	29.9	50.3	.....
31	Do	29.4	22.2	.....
32	Dried, salted, and smoked, edible portion	30.0	6.5	.....
33	Dried, salted, and smoked, stewed	9.5	4.5	5.9
34	Do	22.2	20.0	.....
35	Sausage, Bologna	18.7	17.6	.3
	Veal:			
36	Cutlets, edible portion	26.7	16.8	.....
37	Roast	27.4	6.0	.....
38	Lamb, roast, as purchased	23.1	19.7	.....
	Mutton:			
39	Chops	18.4	26.7	.....
40	Roast, edible portion	25.0	22.6	.....
	Pork:			
41	Boiled	15.7	36.3	.....
42	Chops, fried with flour, as purchased	24.3	28.2	12.2
43	Feet, as purchased	5.5	9.1	.....
44	Head-cheese	19.5	33.8	.....
45	Loin, baked, edible portion	21.9	26.5	.....
46	Jowl, boiled, edible portion	18.2	50.5	.....
47	Roast, with gravy	27.6	21.6	.....
48	Bacon, fried	22.8	40.0	.....
49	Do	22.7	69.3	.....
50	Do	19.9	61.3	.....
51	Average, Nos. 48, 49	22.8	54.7	.....
52	Average, Nos. 48–50	21.8	56.9	.....
53	Ham, fried	21.2	29.4	.....
54	Do	22.2	33.2	.....
55	Shoulder, smoked, boiled, as purchased	17.1	27.0	.....
56	Shoulder, smoked, boiled, edible portion	22.6	40.5	.....
57	Do	20.1	27.1	.....
58	Sausage, fried	22.6	48.7	1.9
59	Do	16.4	49.1	1.2
60	Do	21.2	68.2	1.8
61	Do	24.6	60.1	2.1
62	Average, Nos. 58–60	20.1	55.3	1.6
63	Sausage, Frankfort	19.6	18.6	1.1
64	Gravy, pork	.9	35.5	5.3
65	Do	1.1	28.6	4.6
	Poultry, chicken:			
66	Fricasseed, as purchased	10.7	9.3	2.9
67	Stewed, edible portion	12.1	11.4	.....
	Fish, etc.:			
68	Codfish, baked	12.9	.2	.....
69	Codfish, scalloped	19.8	1.8	8.1
70	Codfish, stuffed	13.8	27.1	4.0
71	Halibut, boiled	22.7	6.3	.....
72	Haddock, baked	9.0	11.8	1.9
73	Herring, fried	27.1	28.5	6.1
74	Shad, baked (as haddock)	9.0	11.8	1.9
75	Cod, salt, boiled	28.8	.4	.....
76	Herring, dried, salted, and smoked	20.5	8.8	.....
77	Mackerel, salt, boiled	23.2	24.8	.....
78	Do	22.1	33.8	.....
79	Do	17.8	19.0	.....
80	Do	26.2	28.0	.....
81	Average, Nos. 77–79	21.0	25.9	.....
82	Salmon, canned	21.8	12.1	.....
	Eggs:			
83	Fresh, as purchased	13.1	9.3	.....
84	Boiled, as purchased	12.4	10.7	.....
85	Boiled, edible portion	14.0	12.0	.....
86	Fried	13.6	19.7	.....
87	Scrambled	13.4	20.5	.....
88	Butterine (as butter)	1.0	85.0	.....
89	Cheese	25.9	33.7	2.4
90	Cream, evaporated	9.6	9.3	11.2
91	Milk	3.3	4.0	5.0
	VEGETABLE FOOD.			
	Cereals:			
92	Hominy, boiled	1.8	1.6	16.7
93	Do	2.2	.2	21.2
94	Average, Nos. 92, 93	2.0	.9	19.0
95	Cereal, mixed, boiled	2.3	.6	11.8

TABLE 37.—*Percentage composition of foods used in the dietary studies*—Continued.

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	VEGETABLE FOOD—continued.			
	Cereals—Continued.	*Per cent.*	*Per cent.*	*Per cent.*
96	Mush, corn-meal	1.3	0.3	14.0
97	Do	1.3	.4	14.8
98	Average, Nos. 96, 97	1.3	.4	14.4
99	Oatmeal, boiled	2.3	1.0	9.0
100	Do	2.8	1.2	11.1
101	Do	2.9	1.3	11.7
102	Do	2.6	1.2	10.6
103	Do	2.3	1.0	9.2
104	Average, Nos. 100, 101, 110, 111	2.8	1.2	11.2
105	Oatmeal, boiled	2.7	1.2	10.6
106	Do	2.3	1.0	9.0
107	Do	2.3	1.0	9.1
108	Do	2.9	1.4	11.8
109	Do	2.9	1.5	12.1
110	Do	2.9	1.3	11.8
111	Do	2.6	1.1	10.1
112	Average, Nos. 109, 110	2.9	1.5	12.0
113	Average, Nos. 99–103, 105–111	2.6	1.2	10.5
114	Rice, boiled	1.2	.....	12.6
115	Do	1.4	.....	14.0
116	Do	1.4	.....	13.7
117	Do	1.0	.....	10.3
118	Do	1.3	.....	13.2
119	Do	1.5	.....	14.4
120	Do	1.0	.....	9.3
121	Do	1.0	.....	9.6
122	Do	1.4	.1	14.0
123	Average, Nos. 120, 121	1.0	.....	9.5
124	Average, Nos. 114–121	1.2	.....	12.1
125	Shredded wheat	10.5	1.4	77.9
126	Wheat breakfast food, boiled	1.4	.1	8.6
127	Do	1.8	.4	13.7
128	Do	2.5	.4	15.6
129	Do	1.9	.3	11.4
130	Corn bread	5.1	13.9	36.0
131	Do	6.6	8.1	39.7
132	Average, Nos. 130, 131	5.9	11.0	37.9
133	Bread, biscuit, and rolls	9.2	1.3	53.1
134	Crackers, soda	9.8	9.1	73.1
135	Fritters (as bread)	9.2	1.3	53.1
136	Toast	11.5	1.6	61.2
137	Cake, bakers'	6.3	4.6	56.9
138	Cake, jelly	6.3	9.0	63.3
139	Cake, frosted	5.9	9.0	64.8
140	Doughnuts, fried	6.7	21.0	53.1
141	Gingerbread and ginger cake	5.8	9.0	63.5
142	Bread dressing (as bread)	9.2	1.3	53.1
143	Macaroni, boiled	3.3	2.1	15.8
	Sugars, etc.:			
144	Molasses	.....	.....	70.0
145	Sauce, pudding	2.0	18.1	75.0
146	Sugar	.....	.....	100.0
	Vegetables:			
147	Beans, baked	8.7	7.2	25.7
148	Do	8.8	9.8	28.3
149	Do	6.0	6.6	15.5
150	Do	9.7	6.4	25.2
151	Do	8.9	5.9	26.4
152	Average, Nos. 147–149	7.8	7.9	23.2
153	Beans, kidney, boiled	7.1	.6	18.9
154	Do	10.1	.8	26.8
155	Beans, Lima, boiled	5.6	.5	20.6
156	Beets, boiled with butter and sugar	1.7	1.1	17.0
157	Beans, boiled	1.8	.1	10.6
158	Average, 156, 157	1.8	.6	13.8
159	Cabbage, boiled	1.8	.3	6.3
160	Do	1.9	.5	7.0
161	Do	1.8	.3	6.3
162	Do	1.7	.3	6.1
163	Do	2.1	.4	7.5
164	Do	1.8	.3	6.3
165	Average, Nos. 159, 162, 163	1.9	.3	6.6
166	Average, Nos. 159–164	1.9	.4	6.6
167	Cabbage, with bacon	2.5	3.7	6.7
168	Average, Nos. 160, 164, 167	2.1	1.5	6.7
169	Celery, as purchased	.9	.1	2.6
170	Celery, edible portion	1.1	.1	3.3
171	Celery salad (as celery, edible portion)	1.1	.1	3.3
172	Corn, stewed with milk	4.0	2.5	22.6
173	Corn, stewed with butter	2.9	4.0	19.0

TABLE 37.—*Percentage composition of foods used in the dietary studies*—Continued.

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	VEGETABLE FOOD—continued.			
	Vegetables—Continued.	*Per cent.*	*Per cent.*	*Per cent.*
174	Corn, stewed with milk and butter	2.5	3.7	17.1
175	Do	3.1	5.0	20.0
176	Corn, stewed with butter, sugar, and flour	3.2	2.8	25.9
177	Corn, stewed with milk and flour	2.8	1.2	16.5
178	Average, Nos. 174–176	2.9	3.8	21.0
179	Average, Nos. 172–177	3.1	3.2	20.2
180	Egg plant, cooked	6.4	24.5	32.5
181	Kale, boiled (as cabbage, boiled)	1.4	3.8	5.0
182	Lettuce	1.2	.3	2.9
183	Onions, green	1.0	.1	11.2
184	Onions, boiled	1.2	1.8	4.9
185	Onions, fried	1.0	25.0	11.0
186	Parsnips, boiled and browned	2.0	6.6	16.5
187	Peas, canned, stewed	4.3	.3	11.7
188	Peas, canned, stewed with butter and sugar	3.4	1.7	11.6
189	Average, Nos. 187, 188	3.9	1.0	11.7
190	Pickles, cucumber	.5	.3	2.7
191	Potatoes, baked, as purchased	2.3	.....	19.2
192	Do	2.0	.....	16.5
193	Do	2.4	.2	19.1
194	Do	3.0	.3	24.3
195	Do	2.3	.1	19.1
196	Do	2.2	.2	17.6
197	Do	2.4	.....	20.4
198	Do	2.9	.3	23.1
199	Do	2.3	.1	18.4
200	Do	3.0	.....	24.0
201	Do	2.3	.....	18.9
202	Do	2.3	.1	19.0
203	Average, Nos. 191–202	2.5	.1	20.0
204	Potatoes, baked, edible portion (as boiled and browned)	2.5	.1	20.8
205	Potatoes, steamed, as purchased	1.8	.1	14.9
206	Do	1.9	.1	15.1
207	Average, Nos. 205, 206	1.9	.1	15.0
208	Potatoes, steamed, edible portion	2.2	.....	19.3
209	Do	2.5	.....	20.9
210	Average, Nos. 208, 209	2.4	.....	20.1
211	Potatoes, boiled, edible portion	2.2	.....	18.9
212	Do	2.2	.1	18.4
213	Average, Nos. 208, 209, 211, 212	2.3	.....	19.4
214	Potatoes, boiled and browned	2.4	.1	19.6
215	Do	3.0	.2	25.4
216	Do	2.1	.1	17.4
217	Average, Nos. 214–216	2.5	.1	20.8
218	Potatoes, fried	2.3	6.9	21.1
219	Do	2.2	6.2	21.4
220	Do	2.6	10.9	21.3
221	Do	2.7	9.3	22.0
222	Average, Nos. 218–221	2.5	8.3	21.5
223	Potatoes, hashed	2.6	.....	25.8
224	Potatoes, mashed and creamed	2.4	2.3	15.7
225	Do	2.4	2.2	15.8
226	Do	2.5	2.9	15.9
227	Do	2.7	4.2	19.8
228	Do	2.6	3.0	20.2
229	Average, Nos. 227, 228	2.7	3.6	20.0
230	Average, Nos. 224–228	2.5	2.9	17.5
231	Potato cakes	2.0	5.5	17.5
232	Potato salad (as potatoes, boiled, edible portion)	2.3	.....	19.4
233	Saratoga chips	6.8	39.8	46.7
234	Rhubarb, stewed	.5	.6	23.1
235	Sauerkraut	1.7	.5	3.8
236	Slaw	1.6	.3	5.6
237	Soup, bean	2.1	.2	6.8
238	Do	2.1	.2	6.5
239	Average, Nos. 237, 238	2.1	.2	6.7
240	Soup, corn	1.3	2.2	2.8
241	Soup, pea	3.6	.7	7.6
242	Soup, potato	1.5	2.1	4.8
243	Soup, tomato	.3	.5	4.2
244	Do	.3	.5	5.4
245	Average, Nos. 243, 244	.3	.5	4.8
246	Soup, vegetable	.7	.1	4.2
247	Do	.6	.1	4.1
248	Do	.7	.....	5.2
249	Do	1.0	.....	8.0
250	Do	.6	.....	10.3
251	Do	.5	.....	4.0
252	Average, Nos. 248, 249	.9	.....	6.6
253	Average, Nos. 246–251	.7	.....	6.0

TABLE 37.—*Percentage composition of foods used in the dietary studies*—Continued.

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	VEGETABLE FOOD—continued.			
	Vegetables—Continued.	*Per cent.*	*Per cent.*	*Per cent.*
254	Squash, boiled	1.9	0.7	12.2
255	Succotash	4.2	2.1	19.6
256	Sweet potato, baked, as purchased	2.3	.6	28.6
257	Sweet potato, baked, edible portion	2.4	5.9	35.9
258	Sweet potato, boiled (as raw)	1.4	.6	21.9
259	Sweet potato, boiled and browned	2.4	5.9	35.1
260	Do	1.9	2.6	34.3
261	Average, Nos. 259, 260	2.2	4.3	34.7
262	Sweet potato roll	1.8	4.5	28.7
263	Sauce, tomato, stewed	1.8	.4	22.2
264	Do	1.8	.4	28.7
265	Average, Nos. 263, 264	1.8	.4	25.5
266	Tomatoes, stewed	1.7	1.4	15.0
267	Do	1.4	1.4	10.1
268	Average, Nos. 266, 267	1.6	1.4	12.6
269	Turnips, boiled and mashed	1.5	.2	9.1
270	Do	1.3	.2	8.1
	Fruits, etc.:			
271	Apples, as purchased	.3	.3	10.8
272	Apples, baked with sugar	.4	.5	22.9
273	Do	.3	.3	17.0
274	Do	.3	.3	15.0
275	Average, Nos. 273, 274	.3	.3	16.0
276	Average, Nos. 272–274	.3	.4	18.3
277	Apples, fried	4.2	.8	26.0
278	Apple butter	.5	.....	47.2
279	Bananas, as purchased	.8	.4	14.3
280	Bananas, edible portion	1.3	.6	22.0
281	Grapes, as purchased	1.0	1.2	14.4
282	Oranges, as purchased	.6	.1	8.5
283	Pears, stewed	.4	.4	21.1
284	Do	.4	.4	25.5
285	Average, Nos. 283, 284	.4	.4	23.3
286	Prunes, stewed	.7	.....	41.3
287	Do	.7	.....	37.1
288	Do	.8	.....	43.0
289	Do	.9	.....	42.3
290	Do	.7	.....	34.3
291	Average, Nos. 286–290	.8	.....	40.9
292	Jelly, apple	.3	.....	70.0
293	Jelly, currant	.4	.....	64.0
294	Sauce, apple	.2	.2	27.4
295	Do	.4	.5	27.0
296	Do	.2	.3	19.2
297	Do	.4	.4	35.7
298	Do	.6	.6	34.1
299	Do	.3	.3	23.5
300	Sauce, apple, evaporated	.4	.5	30.3
301	Average, Nos. 297–299	.4	.4	31.1
302	Average, Nos. 294–299	.4	.4	27.8
303	Sauce, cranberry	.....	.....	30.5
304	Sauce, peach, evaporated	2.3	.5	37.3
305	Do	1.4	.3	26.2
306	Do	1.6	.3	34.0
307	Average, Nos. 304, 305	1.9	.4	31.8
	MISCELLANEOUS FOOD.			
308	Hash, baked	12.6	10.1	10.3
309	.....do	11.7	24.0	9.7
310	Liver and bacon	25.8	40.2	.8
311	Meat pie	8.1	21.6	16.6
312	Stew, beef	10.2	11.1	8.5
313	.....do	9.8	8.7	8.0
314	.....do	9.6	8.6	3.4
315	.....do	10.1	8.5	8.1
316	Average, Nos. 312–315	9.9	9.2	7.0
317	Stew, mutton	8.2	7.3	8.4
318	Codfish cakes	19.4	9.8	15.3
319	Chicken, creamed, edible portion	7.0	6.3	3.1
320	Chicken, baked and stuffed	21.8	10.9	3.8
321	Oysters, creamed	4.7	6.5	6.3
322	Oysters, scalloped	7.6	13.8	33.3
323	Oysters, stewed	4.0	3.8	4.0
324	Average, Nos. 321–323	4.4	5.2	5.2
325	Soup, clam (as soup, oyster)	2.5	2.5	3.6
326	Soup, oyster	2.5	2.5	3.6
327	Omelet, ham (as scrambled eggs)	13.4	20.5	.....
328	Sauce, for halibut	4.3	9.6	5.3
329	Gravy, for steak	1.4	8.3	5.5

TABLE 37.—*Percentage composition of foods used in the dietary studies*—Continued.

Reference No.	Kind of food.	Protein.	Fat.	Carbohydrates.
	MISCELLANEOUS FOOD—continued.	*Per cent.*	*Per cent.*	*Per cent.*
330	Gravy, for beef	.....	.....	1.1
331	Griddle cakes	6.5	2.3	37.2
332	Hominy and beans	4.7	.9	21.6
333	Macaroni and cheese, baked	7.4	6.4	16.6
334	Macaroni and tomatoes, boiled	3.5	.5	19.2
335	Muffins	9.9	15.6	38.9
336	Custard, plain	5.6	5.0	16.7
337	Custard, chocolate	4.5	4.9	16.3
338	Custard sauce	4.9	4.2	15.9
339	Dumplings, apple (as apple pie)	3.1	9.8	42.8
340	Ice cream, caramel	3.9	4.0	21.1
341	Ice, lemon	.8	.....	82.4
342	Jelly, lemon	3.1	.....	17.6
343	Onions, creamed (as onions boiled)	1.2	1.8	4.9
344	Pie, apple	1.9	6.7	29.0
345	Pie, apple, evaporated	3.1	9.8	42.8
346	Pie, custard	4.2	6.3	26.1
347	Pie, lemon	3.6	10.1	37.4
348	Pie, mince	5.8	12.3	38.1
349	Pie, peach, evaporated	3.4	17.6	38.5
350	Pie, rhubarb	2.8	11.6	27.0
351	.....do	3.1	9.8	42.8
352	Pie, squash	4.4	8.4	21.7
353	Pudding, bread	2.6	2.3	22.1
354	Pudding, chocolate	3.2	4.9	21.3
355	.....do	2.9	5.8	24.6
356	Average, Nos. 354, 355	3.1	5.4	23.0
357	Pudding, cornstarch	3.0	.7	33.9
358	Pudding, cottage (as cake)	6.3	4.6	56.9
359	Pudding, cottage	6.7	11.1	60.0
360	Pudding, floating island	4.6	4.6	15.8
361	.....do	4.7	4.4	22.4
362	Average, Nos. 360, 361	4.7	4.5	19.1
363	Pudding, junket	2.6	2.9	12.3
364	Pudding, rice	3.8	3.3	16.2
365	.....do	4.1	3.4	22.7
366	Pudding, steamed	4.9	8.9	54.2
367	.....do	4.3	5.5	55.5
368	Pudding, tapioca	3.3	3.2	28.2
369	Sauce, lemon, for pudding	2.1	1.6	19.0
370	Sauce, for pudding	.9	4.7	14.0
371	.....do	5.0	3.8	16.3
372	Sauce, for pudding (as milk)	3.3	4.0	5.0

STATISTICS FOR COMPUTING THE PERCENTAGE COMPOSITION OF THE COOKED FOODS USED IN THE DIETARY STUDIES.

It has been explained (p. 15) that in lieu of actual analyses, which it was not practicable to make in connection with these studies, the percentage composition of each cooked food used during the studies was computed from the total weight of the cooked material and the weight and assumed composition of each raw ingredient used. The method of making such computations for each of the various classes of cooked foods is explained in detail in Tables 1, 2, and 3 and the text accompanying them. The figures for the percentage composition of the different materials as thus computed are given in Table 37 above. The data regarding the total weight of the cooked material, the weight and assumed composition of the raw ingredients, the weights of fat and bone removed, etc., from which the figures in Table 37 were computed, are given in Table 38 below. The observer's notes regarding the character and quality of the raw materials were essential for a proper estimation of the percentage composition, but these are not given as they were very voluminous.

In connection with the explanation of the method of computation given on pages 15 to 15, just referred to, a few remarks here will, it is believed, make the data in the table clear.

The figures in the column headed "Reference No." correspond with those in Table 37, their purpose being to indicate the data in Table 38 that were used in com-

puting the composition of any given cooked article in Table 37. For instance, No. 2 of Table 37 is beef, boiled, "as purchased," the composition of which is given as 18.6 per cent protein and 22.8 per cent fat. By referring to Table 38 it will be seen that the total weight of the cooked meat was 258.5 pounds, and that of the uncooked meat was 325 pounds. The observer's notes showed that this consisted of medium fat beef side, "as purchased," the composition of which was assumed from the average of several analyses to be protein 14.8 per cent and fat 18.1 per cent. Following the method of calculation explained on page 16, the total amount of protein in the uncooked meat was found to be 48.1 pounds and of fat 58.8 pounds. Dividing these quantities by the weight of the cooked meat gives 18.6 per cent of protein and 22.8 per cent fat in the cooked meat, the composition recorded in Table 37.

The terms "as purchased" and "edible portion" used in the tables are common in accounts of dietary studies, and serve to indicate the condition of the food materials as regards the presence or absence of refuse, i. e., inedible material, such as the skins and seeds of vegetables, the bone of meat, the shell of eggs, etc. If the food material when weighed contained such inedible material, the term "as purchased" is used in the record; whereas if the inedible material or refuse had been removed before the weight was taken the term "edible portion" is used. Thus, in the case of item No. 2 of Table 38, discussed above, "beef side, as purchased, 325 pounds," indicates that the bones were still in the meat; whereas in the case of No. 4 the statement, "beef, boiled, edible portion, 17.5 pounds," indicates an amount of food material not containing refuse.

Information concerning the refuse is necessary in estimating the percentage composition which should be used to compute the nutrients furnished by any given food material. This will be clear from a consideration of item No. 4. A part of beef No. 2, namely 29 pounds, was used to feed a certain group, but before serving, the bones were removed and only the edible portion, 17.5 pounds, was placed on the table. It was necessary therefore to ascertain the composition of the edible portion alone in order to calculate the quantities of nutrients in the amounts eaten. The computation of the composition in this case was exactly the same as that explained just above for beef No. 2. The quantities of protein and fat in the 29 pounds of beef, which still contained bone, were calculated by the use of the figures for the composition of beef No. 2 (Table 37) from which it was taken, and these were divided by the total amount of edible material, 17.5 pounds. The resulting figures were the percentage composition of edible portion given for beef No. 4 in Table 37.

It will be observed that in some cases the figures in the column of Table 38 headed "Weight of ingredients" are those for materials to be deducted in computing composition. For instance, in the case of No. 8, allowance is made in computing the composition of beef "edible portion" from beef "as purchased" for fat cooked out of the meat and for bones removed after cooking. This is fully explained in the discussion on page 16.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies.*

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
1	Beef, boiled, as purchased	24.50	11.11					
	Beef, brisket and plate, as purchased			28.75	13.04	12.9	23.4	
2	Beef, boiled, as purchased	258.50	117.26					
	Beef, side, as purchased			325.00	147.42	14.8	18.1	
4	Beef, boiled, edible portion	17.50	7.94					
	Beef, boiled, from lot No. 2			29.00	13.15	18.6	22.8	
	Bones removed			11.50	5.22			
5	Beef, boiled, edible portion	87.75	39.80					
	Beef, shins, brisket, and neck, as purchased			142.10	64.46	18.8	18.9	
6	Beef, boiled, edible portion	63.00	28.58					
	Beef, plate, neck, clod, and shin, edible portion			104.25	47.29	19.2	17.1	
7	Beef, boiled, edible portion	163.25	74.05					
	Beef, plate, brisket, and chuck, edible portion			232.30	105.37	16.9	25.2	
8	Beef, boiled, edible portion	364.00	165.11					
	Beef, neck, shin, and clod, as purchased			650.00	294.84	15.1	13.1	
	Fat cooked out			16.00	7.26		100.0	
	Bones removed after cooking			81.00	36.74			
10	Liver, fried	10.50	4.76					
	Liver			12.75	5.78	20.7	4.5	1.5
	Flour			3.75	1.70	11.4	1.0	75.1
	Butter			.75	.34	1.0	85.0	
	Fat for frying			2.65	1.20		100.0	
	Fat remaining after cooking			1.50	.68		100.0	
11	Liver, fried	45.75	20.75					
	Liver			57.50	26.08	20.7	4.5	1.5
	Fat for frying			4.50	2.04		100.0	
12	Beef, roast, as purchased	25.14	11.40					
	Beef, chuck, as purchased			37.75	17.12	15.5	15.0	
13	Beef, roast, as purchased	20.50	9.30					
	Beef, chuck and brisket, as purchased			32.25	14.63	14.3	16.2	
14	Beef, roast, as purchased	428.00	194.14					
	Beef, side, as purchased			600.00	272.16	14.8	18.1	
	Fat cooked out			15.50	7.03		100.0	
16	Beef, roast, edible portion	116.50	52.84					
	Beef, rib, chuck, and plate, edible portion			173.50	78.70	17.5	24.6	
17	Beef, roast, edible portion	373.00	169.19					
	Beef, cooked, as purchased (same lot as No. 14)			428.00	194.14	20.7	21.8	
	Bones removed after cooking			55.00	24.95			
18	Beefsteak, fried, edible portion	14.00	6.35					
	Beef, rib, edible portion			18.75	8.51	17.5	26.6	
	Lard for frying			1.00	.45		100.0	
	Fat remaining after frying			.75	.34		100.0	
19	Beefsteak, fried, edible portion	17.00	7.71					
	Beef, rib, edible portion			22.00	9.98	17.5	26.6	
20	Beefsteak, fried, edible portion	16.25	7.37					
	Beef, sirloin and rib, edible portion			19.00	8.62	18.2	22.6	
21	Beefsteak, fried, edible portion	14.75	6.69					
	Beef, sirloin, edible portion			20.50	9.30	18.9	18.5	
	Lard for frying			.30	.14		100.0	
22	Beefsteak, fried, as purchased	26.25	11.91					
	Beef, round, as purchased			36.25	16.44	19.0	12.8	
23	Beefsteak, fried, as purchased	23.00	10.43					
	Beef, round and sirloin, as purchased			31.25	14.18	17.6	15.2	
	Lard for frying			1.75	.79		100.0	
24	Beefsteak, fried, edible portion	91.50	41.50					
	Beef, round, edible portion			136.00	61.69	20.3	13.6	
28	Beef:							
	Corned, boiled, edible portion	401.50	182.12					
	Beef, corned, cooked, as purchased, lot No. 31			515.50	233.83	22.9	17.8	
	Bones removed after cooking			111.00	51.71			
29	Beef:							
	Corned, boiled, as purchased	254.25	115.33					
	Beef, corned, as purchased			360.00	163.30	15.6	26.2	

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
29	Beef, corned, boiled, edible portion, from lot above	27.50	12.47					
	Beef, corned, boiled, as purchased			38.75	17.58	22.1	37.1	
	Bone and refuse			11.25	5.10			
30	Beef, corned, boiled, edible portion	135.50	61.46					
	Beef, corned, edible portion			260.00	117.94	15.6	26.2	
31	Beef, corned, boiled, as purchased	515.50	233.83					
	Beef, corned, side, as purchased			799.00	362.43	14.8	18.1	
	Fat cooked out			56.00	25.40		100.0	
33	Beef, dried, stewed	21.0	9.53					
	Beef, dried, canned			4.00	1.81	39.2	5.4	
	Milk			9.50	4.31	3.3	4.0	5.0
	Butter			.40	.18	1.0	85.0	
	Flour			1.00	.45	11.4	1.0	75.1
34	Beef, dried, stewed	4.50	2.04					
	Beef, dried, canned			2.50	1.13	39.2	5.4	
	Butter			.95	.43	1.0	85.0	
36	Veal cutlets, fried, edible portion	16.00	7.26					
	Veal cutlets, edible portion			21.00	9.53	20.3	7.7	
	Butter			1.25	.57	1.0	85.0	
38	Lamb, roast, as purchased	23.25	10.55					
	Lamb, leg, as purchased			33.75	15.31	15.9	13.6	
42	Pork, chops, fried, as purchased	26.25	11.91					
	Pork chops, as purchased			43.75	19.85	13.4	24.2	
	Fat for frying			4.25	1.93		100.0	
	Flour			4.25	1.93	11.4	1.0	75.1
	Fat remaining after frying			7.50	3.40		100.0	
43	Pork, feet, boiled, as purchased	77.00	34.93					
	Pork, feet, as purchased			102.00	46.27	4.1	6.9	
45	Pork, baked, as purchased	31.00	14.06					
	Pork, loin, as purchased			50.50	22.91	13.4	24.2	
	Fat cooked out			4.00	1.81		100.0	
46	Pork, jowl, boiled, edible portion	179.50	81.42					
	Pork, jowls, as purchased			325.00	147.42			
	Bones, raw[a]			81.10	36.79			
	Pork, jowls, edible portion			243.90	110.63	13.4	41.3	
	Fat cooked out (estimated)			10.00	4.54		100.0	
47	Pork, roast, edible portion	85.00	38.56					
	Pork, ribs, as purchased			175.00	79.38	13.4	24.2	
	Fat cooked out			24.00	10.89		100.0	
48	Pork, bacon, fried, edible portion	3.50	1.59					
	Pork, bacon, fat, edible portion			8.00	3.63	9.9	67.4	
	Fat cooked out			4.00	1.81		100.0	
49	Pork, bacon, fried, as purchased	7.50	3.40					
	Pork, bacon, as purchased			18.75	8.51	9.1	62.2	
	Fat cooked out			6.50	2.95		100.0	
50	Pork, bacon, fried, edible portion	34.25	15.54					
	Pork, bacon, edible portion			69.00	31.30	9.9	67.4	
	Fat cooked out			25.50	11.57		100.0	
53	Pork, ham, fried, as purchased	12.25	5.56					
	Pork, ham, sliced, as purchased			18.25	8.28	14.2	33.4	
	Fat cooked out			2.50	1.13		100.0	
55	Pork, shoulders, smoked, boiled, as purchased	686.00	311.17					
	Pork, shoulders, smoked, as purchased			900.00	408.24	13.0	26.6	
	Fat cooked out			54.50	24.72		100.0	
56	Pork, shoulders, smoked, edible portion	172.00	78.02					
	Pork, shoulders, smoked, edible portion			245.00	111.13	15.9	32.5	
	Fat removed			10.00	4.54		100.0	
57	Pork, shoulders, smoked, boiled, edible portion	507.00	229.98					
	Pork, shoulders (same lot as No. 55), cooked, as purchased			686.00	311.17	17.1	27.0	
	Bones			91.00	41.28			
	Skins, removed			88.00	39.92	15.4	53.7	
58	Pork, sausage, fried, as purchased	35.50	16.10					
	Pork, sausage, as purchased			61.75	28.01	13.0	44.2	1.1
	Fat cooked out			10.00	4.54		100.0	
59	Pork, sausage, fried, as purchased	16.50	7.48					
	Pork, sausage, as purchased			20.75	9.41	13.0	44.2	1.1
	Lard, for frying			.35	.16		100.0	
	Fat cooked out			1.50	.68		100.0	
60	Pork, sausage, fried, as purchased	86.50	39.24					
	Pork, sausage, as purchased			140.75	63.84	13.0	44.2	1.1
	Fat cooked out			3.25	1.47		100.0	

[a] Estimated from the weight of cooked bones. The loss in cooking is estimated as 10 per cent.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
61	Pork, sausage, fried, as purchased	287.00	130.18					
	Pork, sausage, as purchased			544.00	246.76	13.0	44.2	1.1
	Fat cooked out			68.00	30.85		100.0	
64	Pork, gravy, cooked	11.25	5.10					
	Pork, fat, from cooking pork			4.00	1.81		100.0	
	Flour			.75	.34	11.4	1.0	75.1
65	Pork, gravy, cooked	8.75	3.97					
	Pork, fat, from cooking pork			2.50	1.13		100.0	
	Flour			.50	.23	11.4	1.0	75.1
66	Chicken, fricasseed, as purchased	34.00	15.42					
	Chicken, as purchased			25.50	11.57	13.7	12.3	
	Onions, edible portion			1.50	.68	1.6	.3	9.9
	Flour			1.10	.50	11.4	1.0	75.1
67	Chicken, stewed, edible portion	34.00	15.42					
	Chicken, edible portion			21.25	9.64	19.3	16.3	
	Butter			.50	.23	1.0	85.0	
68	Cod, baked, dressed	135.00	61.24					
	Cod, dressed, as purchased			156.75	71.10	11.1	.2	
69	Cod, scalloped	28.25	12.81					
	Cod, salt, edible portion			21.50	11.11	21.5	.3	
	Milk			5.65	2.56	3.3	4.0	5.0
	Butter			.25	.11	1.0	85.0	
	Bread			2.00	.91	9.2	1.3	53.1
	Flour			1.25	.57	11.4	1.0	75.1
70	Cod, stuffed, baked	27.50	12.47					
	Cod, fresh, dressed, as purchased			32.75	14.86	11.1	.2	
	Bread			1.75	.79	9.2	1.3	53.1
	Butter			1.00	.45	1.0	85.0	
	Flour			.25	.11	11.4	1.0	75.1
	Fat for cooking			6.50	2.95		100.0	
71	Halibut, boiled	26.25	11.91					
	Halibut, dressed, edible portion			32.00	14.52	18.6	5.2	
72	Haddock, baked	389.00	176.45					
	Haddock, dressed, edible portion			403.00	182.80	8.1	.2	
	Bread, dried			14.00	6.35	9.2	1.3	53.1
	Fat for baking			45.00	20.41		100.0	
73	Herring, dressed, fried	396.75	179.97					
	Herring, dressed, edible portion			533.50	242.00	19.5	7.1	
	Fat for frying			75.00	34.02		100.0	
	Flour			32.25	14.63	11.4	1.0	75.1
75	Cod, salt, boiled	209.00	94.80					
	Cod, salt, edible portion			280.00	127.01	21.5	.3	
77	Mackerel, salt, boiled	11.75	5.33					
	Mackerel, salt, entrails removed			16.75	7.60	16.3	17.4	
78	Mackerel, salt, boiled	88.75	40.26					
	Mackerel, salt, edible portion			113.50	51.48	17.3	26.4	
79	Mackerel, salt, boiled	15.75	7.14					
	Mackerel, salt, entrails removed			17.25	7.82	16.3	17.4	
80	Mackerel, salt, fried	280.00	127.01					
	Mackerel, salt, entrails removed			450.00	204.12	16.3	17.4	
86	Eggs, fried	14.75	6.69					
	Eggs, edible portion			13.25	6.01	14.8	10.5	
	Fat for frying			1.50	.68		100.0	
87	Eggs, scrambled	16.00	7.26					
	Eggs, edible portion			14.50	6.58	14.8	10.5	
	Lard for cooking			1.75	.79		100.0	
92	Hominy, boiled	117.25	53.18					
	Hominy			21.75	11.23	8.3	.6	79.0
	Butter			2.00	.91	1.0	85.0	
93	Hominy, boiled	106.00	48.08					
	Hominy			28.50	12.93	8.3	.6	79.0
95	Cereal, mixed, boiled	29.75	13.49					
	Wheat breakfast food and oatmeal mixed			5.00	2.27	14.3	4.6	70.0
96	Mush (corn-meal, boiled)	28.00	12.70					
	Corn meal			5.00	2.27	7.1	1.3	78.1
97	Mush (corn-meal, boiled)	22.25	10.09					
	Corn meal			4.25	1.93	7.1	1.3	78.1
99	Oatmeal, boiled	95.75	43.43					
	Oats, rolled			13.00	5.90	16.7	7.3	66.2
100	Oatmeal, boiled	148.75	67.47					
	Oats, rolled			25.00	11.34	16.7	7.3	66.2
101	Oatmeal, boiled	124.75	56.59					
	Oats, rolled			22.00	9.98	16.7	7.3	66.2
102	Oatmeal, boiled	26.50	12.02					
	Oats, rolled			4.25	1.93	16.7	7.3	66.2

TABLE 38.— *Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
103	Oatmeal, boiled	27.00	12.25					
	Oats, rolled			3.75	1.70	16.7	7.3	66.2
105	Oatmeal, boiled	26.50	12.02					
	Oats, rolled			4.25	1.93	16.7	7.3	66.2
106	Oatmeal, boiled	24.00	10.89					
	Oats, rolled			3.25	1.47	16.7	7.3	66.2
107	Oatmeal, boiled	25.50	11.57					
	Oats, rolled			3.50	1.59	16.7	7.3	66.2
108	Oatmeal, boiled	28.00	12.70					
	Oats, rolled			5.00	2.27	16.7	7.3	66.2
109	Oatmeal, boiled	27.25	12.36					
	Oats, rolled			5.00	2.27	16.7	7.3	66.2
110	Oatmeal, boiled	119.25	54.09					
	Oats, rolled			21.25	9.64	16.7	7.3	66.2
111	Oatmeal, boiled	153.50	69.63					
	Oats, rolled			23.50	10.66	16.7	7.3	66.2
114	Rice, boiled	22.00	9.98					
	Rice			3.50	1.59	8.0	.3	79.0
115	Rice, boiled	25.50	11.57					
	Rice			4.50	2.04	8.0	.3	79.0
116	Rice, boiled	26.00	11.79					
	Rice			4.50	2.04	8.0	.3	79.0
117	Rice, boiled	23.00	10.43					
	Rice			3.00	1.36	8.0	.3	79.0
118	Rice, boiled	25.50	11.57					
	Rice			4.25	1.93	8.0	.3	79.0
119	Rice, boiled	26.00	11.79					
	Rice			4.75	2.15	8.0	.3	79.0
120	Rice, boiled	30.00	13.61					
	Rice			3.50	1.59	8.0	.3	79.0
121	Rice, boiled	29.25	13.27					
	Rice			3.50	1.59	8.0	.3	79.0
122	Rice, boiled	395.00	179.17					
	Rice			70.00	31.75	8.0	.3	79.0
126	Wheat breakfast food, boiled	26.25	11.91					
	Wheat breakfast food			3.00	1.36	12.4	1.0	75.8
127	Wheat breakfast food, boiled	27.75	12.59					
	Wheat breakfast food			5.00	2.27	10.9	1.9	76.2
128	Wheat breakfast food, boiled	27.50	12.47					
	Wheat breakfast food			5.75	2.61	12.3	1.8	74.2
129	Wheat breakfast food, boiled	489.25	221.92					
	Wheat breakfast food			75.00	34.02	12.3	1.8	74.2
130	Corn bread	27.25	12.36					
	Corn meal			11.50	5.22	7.1	1.3	78.4
	Milk			6.50	2.95	3.3	4.0	5.0
	Lard			3.00	1.36	.....	100.0	.....
	Eggs, as purchased			2.75	1.25	13.1	9.3	.....
	Sugar			.50	.23	.....	.....	100.0
131	Corn bread	36.75	16.67					
	Milk			18.50	8.39	3.3	4.0	5.0
	Eggs, as purchased			3.00	1.36	13.1	9.3	.....
	Flour			4.75	2.15	11.4	1.0	75.1
	Lard			1.75	.79	.....	100.0	.....
	Corn meal			12.25	5.56	7.1	1.3	78.4
	Sugar			.50	.23	.....	.....	100.0
143	Macaroni and tomatoes, boiled	369.00	167.38					
	Macaroni			75.00	34.02	13.4	.9	74.1
	Tomatoes, canned			67.50	30.62	1.2	.2	4.0
	Butter			6.00	2.72	1.0	85.0	.....
	Cheese			5.00	2.27	25.9	33.7	2.4
145	Sauce for pudding	9.50	4.31					
	Sugar			6.00	2.72	.....	.....	100.0
	Butter			2.00	.91	1.0	85.0	.....
	Flour			1.50	.68	11.4	1.0	75.1
147	Beans, baked	191.00	86.64					
	Beans, pea white, dried			72.75	33.00	22.5	1.8	59.6
	Pork, salt			14.50	6.58	1.9	86.2	.....
	Molasses			8.25	3.74	.....	.....	70.0
148	Beans, baked	152.00	68.95					
	Beans, pea white, dried			58.25	26.42	22.5	1.8	59.6
	Pork, salt			16.00	7.26	1.9	86.2	.....
	Molasses			11.75	5.34	.....	.....	70.0
149	Beans, baked	130.00	58.97					
	Beans, pea white, dried			33.75	15.34	22.5	1.8	59.6
	Pork, salt			9.25	4.20	1.9	86.2	.....
150	Beans, baked	461.00	209.11					
	Beans, pea white, dried			195.00	88.45	22.5	1.8	59.6
	Pork, salt			30.00	13.61	1.9	86.2	.....

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
151	Beans, baked	502.00	227.71					
	Beans, pea white, dried			195.00	88.45	22.5	1.8	59.6
	Pork, salt			30.00	13.61	1.9	86.2	
	Molasses			23.00	10.43			70.0
153	Beans, kidney, boiled	411.00	186.43					
	Beans, kidney, dried			130.00	58.97	22.5	1.8	59.6
154	Beans, kidney, boiled	37.75	17.12					
	Beans, kidney, dried			17.00	7.71	22.5	1.8	59.6
155	Beans, lima, boiled	416.00	188.70					
	Beans, lima, dried			130.00	58.97	18.1	1.5	65.9
156	Beets, boiled, edible portion	17.65	8.01					
	Beets, as purchased			23.25	10.55	1.3	.1	7.7
	Refuse			4.75	2.15			
	Butter			.25	.11	1.0	85.0	
	Sugar			1.15	.52			100.0
157	Beets, boiled, edible portion	152.00	68.95					
	Beets, edible portion			166.50	75.52	1.6	.1	9.7
159	Cabbage, boiled	202.50	91.85					
	Cabbage			228.25	103.53	1.6	.3	5.6
160	Cabbage, boiled	41.25	18.71					
	Cabbage			52.50	23.81	1.6	.3	5.6
161	Cabbage, boiled	40.00	18.14					
	Cabbage			44.00	19.96	1.6	.3	5.6
162	Cabbage, boiled	189.25	85.84					
	Cabbage			205.25	93.10	1.6	.3	5.6
163	Cabbage, boiled	168.00	76.21					
	Cabbage			224.50	101.83	1.6	.3	5.6
164	Cabbage, boiled	83.25	37.76					
	Cabbage			94.00	42.64	1.6	.3	5.6
167	Cabbage, boiled with bacon	40.25	18.26					
	Cabbage			48.75	22.11	1.6	.3	5.6
	Bacon, as purchased			2.25	1.02	9.1	62.2	
172	Corn, stewed	10.25	4.65					
	Corn, canned			11.40	5.17	2.8	1.2	19.0
	Milk			3.00	1.36	3.3	4.0	5.0
173	Corn, stewed	15.25	6.92					
	Corn, canned			15.25	6.92	2.8	1.2	19.0
	Butter			.50	.23	1.0	85.0	
174	Corn, stewed	24.50	11.11					
	Corn, canned			21.50	9.75	2.8	1.2	19.0
	Milk			1.75	.79	3.3	4.0	5.0
	Butter			.60	.27	1.0	85.0	
175	Corn, stewed	26.00	11.79					
	Corn, canned			22.00	9.98	2.8	1.2	19.0
	Milk			2.25	1.02	3.3	4.0	5.0
	Butter			1.00	.45	1.0	85.0	
	Flour			1.25	.57	11.4	1.0	75.1
176	Corn, stewed	24.75	11.23					
	Corn, canned			23.75	10.77	2.8	1.2	19.0
	Butter			.50	.23	1.0	85.0	
	Sugar			1.00	.45			100.0
	Flour			1.25	.57	11.4	1.0	75.1
177	Corn, stewed	138.75	62.94					
	Corn, canned			84.50	38.33	2.8	1.2	19.0
	Cream, evaporated			5.90	2.68	9.6	9.3	11.2
	Flour			8.25	3.74	11.4	1.0	75.1
180	Eggplant, fried	86.50	39.24					
	Eggplant, edible portion			156.50	70.99	1.2	.3	5.1
	Fat for cooking			26.75	12.13		100.0	
	Flour			26.50	12.02	11.4	1.0	75.1
	Eggs, edible portion			2.50	1.13	14.8	10.5	
	Cream, evaporated			2.25	1.02	9.6	9.3	11.2
	Fat after cooking			6.75	3.06		100.0	
181	Kale, boiled	113.00	51.26					
	Kale (as cabbage)			100.00	45.36	1.6	.3	5.6
	Fat for cooking			4.00	1.81		100.0	
185	Onions, fried	455.00	206.39					
	Onions, edible portion			456.00	206.84	1.0	.1	11.2
	Fat for frying			114.00	51.71		100.0	
186	Parsnips, boiled and browned	15.75	7.14					
	Parsnips, edible portion			19.25	8.73	1.6	.5	13.5
	Butter			1.10	.50	1.0	85.0	
187	Peas, stewed	15.25	6.92					
	Peas, canned			18.25	8.28	3.6	.2	9.8
188	Peas, stewed	23.25	10.55					
	Peas, canned			22.75	10.32	3.6	.2	9.8
	Butter			.35	.16	1.0	85.0	
	Sugar			.50	.23			100.0

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
191	Potatoes, baked, as purchased	27.25	12.36					
	Potatoes, as purchased			35.50	16.10	1.8	0.1	14.7
192	Potatoes, baked, as purchased	4.00	1.81					
	Potatoes, as purchased			4.50	2.04	1.8	.1	14.7
193	Potatoes, baked, as purchased	4.25	1.93					
	Potatoes, as purchased			5.50	2.50	1.8	.1	14.7
194	Potatoes, baked, as purchased	3.50	1.59					
	Potatoes, as purchased			5.75	2.61	1.8	.1	14.7
195	Potatoes, baked, as purchased	24.50	11.11					
	Potatoes, as purchased			31.75	14.40	1.8	.1	14.7
196	Potatoes, baked, as purchased	5.00	2.27					
	Potatoes, as purchased			6.00	2.72	1.8	.1	14.7
197	Potatoes, baked, as purchased	2.50	1.13					
	Potatoes, as purchased			3.50	1.59	1.8	.1	14.7
198	Potatoes, baked, as purchased	3.50	1.59					
	Potatoes, as purchased			5.50	2.50	1.8	.1	14.7
199	Potatoes, baked, as purchased	29.25	13.27					
	Potatoes, as purchased			36.75	16.67	1.8	.1	14.7
200	Potatoes, baked, as purchased	2.00	.91					
	Potatoes, as purchased			3.25	1.47	1.8	.1	14.7
201	Potatoes, baked, as purchased	3.50	1.59					
	Potatoes, as purchased			4.50	2.04	1.8	.1	14.7
202	Potatoes, baked, as purchased	30.50	13.84					
	Potatoes, as purchased			39.50	17.92	1.8	.1	14.7
205	Potatoes, boiled, as purchased	149.75	67.93					
	Potatoes, as purchased			151.50	68.72	1.8	.1	14.7
206	Potatoes, boiled, as purchased	175.00	79.38					
	Potatoes, as purchased			179.50	81.42	1.8	.1	14.7
208	Potatoes, steamed, edible portion	27.00	12.25					
	Potatoes, edible portion			28.25	12.81	2.2	.1	18.4
209	Potatoes, steamed, edible portion	27.75	12.59					
	Potatoes, edible portion			31.75	14.40	2.2	.1	18.4
211	Potatoes, boiled, edible portion	27.50	12.47					
	Potatoes, edible portion			28.25	12.81	2.2	.1	18.4
212	Potatoes, boiled, edible portion	28.25	12.81					
	Potatoes, edible portion			28.00	12.70	2.2	.1	18.4
214	Potatoes, boiled and browned	19.50	8.85					
	Potatoes, edible portion			20.75	9.41	2.2	.1	18.4
215	Potatoes, boiled and browned	18.50	8.39					
	Potatoes, edible portion			25.50	11.57	2.2	.1	18.4
216	Potatoes, boiled and browned	22.00	9.98					
	Potatoes, as purchased			26.00	11.79	1.8	.1	14.7
218	Potatoes, browned	17.50	7.91					
	Potatoes, cooked, edible portion			6.10	2.77	1.9	.1	15.0
	Potatoes, edible portion			15.25	6.92	2.2	.1	18.4
	Butter			1.00	.45	1.0	85.0	.....
	Lard			.25	.11	.....	100.0	.....
219	Potatoes, fried	17.75	8.05					
	Potatoes, cooked, edible portion			4.75	2.15	2.3	.1	19.8
	Potatoes, edible portion			15.50	7.03	2.2	.1	18.4
	Butter			1.25	.57	1.0	85.0	.....
220	Potatoes, fried	19.25	8.73					
	Potatoes, edible portion			22.40	10.16	2.2	.1	18.4
	Butter			2.50	1.13	1.0	85.0	.....
221	Potatoes, fried	15.00	6.80					
	Potatoes, edible portion			17.90	8.12	2.2	.1	18.4
	Butter			.75	.34	1.0	85.0	.....
	Lard			.75	.34	.....	100.0	.....
223	Potatoes, hashed	15.50	7.03					
	Potatoes, cooked, edible portion			5.50	2.50	2.5	.....	20.9
	Potatoes, cooked, edible portion			15.50	7.03	2.2	.....	18.9
224	Potatoes, mashed and creamed	28.50	12.93					
	Potatoes, edible portion			23.00	10.43	2.2	.1	18.4
	Milk			5.00	2.27	3.3	4.0	5.0
	Butter			.50	.23	1.0	85.0	.....
225	Potatoes, mashed and creamed	29.50	13.38					
	Potatoes, edible portion			24.00	10.89	2.2	.1	18.4
	Milk			5.00	2.27	3.3	4.0	5.0
	Butter			.50	.23	1.0	85.0	.....
226	Potatoes, mashed and creamed	31.75	14.40					
	Potatoes, edible portion			25.75	11.68	2.2	.1	18.4
	Milk			6.25	2.84	3.3	4.0	5.0
	Butter			.75	.34	1.0	85.0	.....
227	Potatoes, mashed and creamed	26.25	11.91					
	Potatoes, edible portion			27.75	12.59	2.2	.1	18.4
	Milk			2.25	1.02	3.3	4.0	5.0
	Butter			1.25	.57	1.0	85.0	.....

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
228	Potatoes, creamed	26.75	12.13					
	Potatoes, cooked, edible portion			21.75	9.87	2.3	0.1	19.8
	Milk			4.15	1.88	3.3	4.0	5.0
	Butter			.75	.34	1.0	85.0	
	Flour			1.25	.57	11.4	1.0	75.1
231	Potato cakes, fried	20.00	9.07					
	Potatoes, edible portion			19.00	8.62	2.2	.1	18.4
	Butter			1.35	.61	1.0	85.0	
234	Rhubarb sauce	425.25	192.89					
	Rhubarb, canned (as fresh rhubarb)			346.00	156.95	.6	.7	3.6
	Sugar			89.25	40.48			100.0
237	Bean soup [a]	587.75	266.60					
	Beans, pea, white, dried			45.00	20.41	22.5	1.8	59.6
	Flour			17.50	7.94	11.4	1.0	75.1
238	Bean soup [a]	589.00	267.17					
	Beans, pea, white, dried			49.75	22.57	22.5	1.8	59.6
	Flour			11.25	5.10	11.4	1.0	75.1
	Onions			1.50	.68	1.6	.3	9.9
240	Corn soup, clear [a]	92.50	41.96					
	Corn, canned [b]							
	Meat (soup stock) [a]							
	Milk			29.75	13.49	3.3	4.0	5.0
	Butter			1.00	.45	1.0	85.0	
	Flour			1.50	.68	11.4	1.0	75.1
242	Potato soup [a]	96.00	43.55					
	Onions			2.00	.91	1.6	.3	9.9
	Celery			.75	.34	1.1	.1	3.3
	Potatoes			10.75	4.88	2.2	.1	18.4
	Milk			29.50	13.38	3.3	4.0	5.0
	Flour			1.25	.57	11.4	1.0	75.1
	Butter			1.00	.45	1.0	85.0	
243	Tomato soup [a]	95.00	43.09					
	Tomatoes, canned [b]			36.25	16.44			
	Rice			2.50	1.13	8.0	.3	79.0
	Onions, edible portion			1.75	.79	1.6	.3	9.9
	Flour			.50	.23	11.4	1.0	75.1
	Butter			.50	.23	1.0	85.0	
	Sugar			1.50	.68			100.0
244	Tomato soup [a]	94.00	42.64					
	Tomatoes, canned [b]			37.00	16.78			
	Rice			3.00	1.36	8.0	.3	79.0
	Sugar			2.75	1.25			100.0
	Butter			.50	.23	1.0	85.0	
246	Vegetable soup [a]	85.75	38.90					
	Rice			2.00	.91	8.0	.3	79.0
	Peas, canned			2.75	1.25	3.6	.2	9.8
	Corn, canned			2.60	1.18	2.8	1.2	19.0
	Tomatoes, canned			12.50	5.67	1.2	.2	4.0
	Onions			1.50	.68	1.6	.3	9.9
	Carrots			1.50	.68	1.1	.1	9.3
	Celery			.10	.18	1.1	.1	3.3
	Cabbage			.50	.23	1.6	.3	5.6
	Flour			.60	.27	11.4	1.0	75.1
247	Vegetable soup [a]	94.50	42.87					
	Rice			2.50	1.13	8.0	.3	79.0
	Tomatoes, canned			12.50	5.67	1.2	.2	9.0
	Corn, canned			2.50	1.13	2.8	1.2	19.0
	Peas, canned			1.25	.57	3.6	.2	9.8
	Onions, potatoes, carrots, and cabbage (mixed lot)			3.50	1.59	1.6	.3	10.8
	Flour			.60	.27	11.4	1.0	75.1
248	Vegetable soup [a]	42.50	19.28					
	Onions			1.50	.68	1.6	.3	9.9
	Carrots			.50	.23	.9	.2	7.1
	Tomatoes, canned			9.25	4.20	1.2	.2	4.0
	Rice			.25	.11	8.0	.3	79.0
	Corn, canned			4.75	2.15	2.8	1.2	19.0
	Potatoes			2.35	1.07	2.2	.1	18.4
	Cabbage			1.15	.52	1.6	.3	5.6
249	Vegetable soup [a]	40.50	18.37					
	Rice			.50	.23	8.0	.3	79.0
	Flour			1.25	.57	11.4	1.0	75.1

[a] Stock was used in making soup in almost every instance, but the quantity of nutrients in it could not be estimated, hence it is generally not mentioned.

[b] These articles were cooked in the soup for some time and then strained out. Whatever nutritive material may have cooked out of them was necessarily neglected in computing the composition of the soup.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
249	Vegetable soup—Continued.							
	Tomatoes, canned			8.75	3.97	1.2	0.2	4.0
	Onions			2.50	1.13	1.4	.3	8.9
	Carrots			1.00	.45	.9	.2	7.4
	Corn, canned			3.70	1.68	2.8	1.2	19.0
	Cabbage			1.75	.79	1.6	.3	5.6
	Potatoes			2.00	.91	2.2	.1	18.4
250	Vegetable soup[a]	541.00	245.40					
	Potatoes			17.50	7.94	2.2	.1	18.4
	Carrots			1.75	.79	1.1	.4	9.3
	Onions			2.00	.91	1.6	.3	9.9
	Rice			15.00	6.80	8.0	.3	79.0
	Tomatoes, canned			13.75	6.24	1.2	.2	4.0
	Flour			14.50	6.58	11.4	1.0	75.1
251	Vegetable soup[a]	564.25	255.94					
	Tomatoes, canned			12.50	5.67	1.2	.2	4.0
	Carrots			2.25	1.02	1.1	.4	9.3
	Onions			.25	.11	1.6	.3	9.9
	Potatoes			14.25	6.46	2.2	.1	18.4
	Rice			12.00	5.44	8.0	.3	79.0
	Cabbage			7.50	3.40	1.6	.3	5.6
	Flour			12.25	5.56	11.4	1.0	75.1
254	Squash, boiled	69.50	31.53					
	Squash			94.00	42.64	1.4	.5	9.0
255	Succotash	530.00	240.41					
	Beans, lima, dried			85.00	38.56	18.1	1.5	65.9
	Corn, canned			240.00	108.86	2.8	1.2	19.0
	Butter			8.00	3.63	1.0	85.0	
	Flour			3.00	1.36	11.4	1.0	75.1
257	Sweet potatoes, baked, edible portion	34.00	15.42					
	Sweet potatoes, edible portion			42.75	19.39	1.8	.7	27.4
	Butter			2.00	.91	1.0	85.0	
	Sugar			.50	.23			100.0
259	Sweet potatoes, boiled and browned	17.00	7.71					
	Sweet potatoes			21.75	9.87	1.8	.7	27.4
	Butter			1.00	.45	1.0	85.0	
260	Sweet potatoes, boiled and browned	18.50	8.39					
	Sweet potatoes, edible portion			19.50	8.85	1.8	.7	27.4
	Sugar			1.00	.45			100.0
	Butter			.40	.18	1.0	85.0	
262	Sweet potato roll	22.25	10.09					
	Sweet potatoes, edible portion			21.50	9.75	1.8	.7	27.4
	Butter			1.00	.45	1.0	85.0	
	Sugar			.50	.23			100.0
263	Tomato sauce (stewed plum tomatoes)	140.25	63.62					
	Plum tomatoes, as purchased			111.75	50.69	.9	.4	3.9
	Sugar			17.00	7.71			100.0
	Flour			13.00	5.90	11.4	1.0	75.1
264	Tomato sauce (stewed plum tomatoes)	59.25	26.88					
	Plum tomatoes, as purchased			43.75	19.85	.9	.4	3.9
	Sugar			11.00	4.99			100.0
	Flour			5.75	2.61	11.4	1.0	75.1
266	Tomatoes, stewed	18.50	8.39					
	Tomatoes, canned			18.75	8.51	1.2	.2	4.0
	Butter			.25	.11	1.0	85.0	
	Sugar			1.50	.68			100.0
	Bread			1.00	.45	9.2	1.3	53.1
267	Tomatoes, stewed	20.75	9.41					
	Tomatoes, canned			20.10	9.12	1.2	.2	4.0
	Bread			1.50	.68	9.2	1.3	53.1
	Sugar			.50	.23			100.0
	Butter			.35	.16	1.0	85.0	
269	Turnips, boiled, edible portion	285.00	129.28					
	Turnips, edible portion			320.00	145.15	1.3	.2	8.1
272	Apples, baked, edible portion	21.75	9.87					
	Apples, edible portion			21.00	9.53	.4	.5	14.2
	Sugar			2.00	.91			100.0
273	Apples, baked, as purchased	215.00	97.52					
	Apples, as purchased			238.00	107.96	.3	.3	10.8
	Sugar			10.75	4.88			100.0
274	Apples, baked, as purchased	221.00	100.25					
	Apples, as purchased			241.50	109.55	.3	.3	10.8
	Sugar			7.00	3.18			100.0
277	Apples, fried	11.90	5.40					
	Apples, edible portion			8.25	3.74	.4	.5	14.2
	Eggs, as purchased			1.50	.68	13.1	9.3	
	Flour			2.50	1.13	11.4	1.0	75.1

[a] Stock was used in making soup in almost every instance, but the quantity of nutrients in it could not be estimated, hence it is generally not mentioned.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
283	Pears, stewed, edible portion	27.00	12.25					
	Pears, edible portion			19.00	8.62	0.6	0.5	14.1
	Sugar			3.00	1.36			100.0
284	Pears, stewed, edible portion	26.25	11.91					
	Pears, edible portion			17.00	7.71	.6	.5	14.0
	Sugar			4.25	1.93			100.1
286	Prunes, stewed, as purchased	21.25	9.64					
	Prunes, dried			8.50	3.86	1.8		62.2
	Sugar			3.50	1.59			100.0
287	Prunes, stewed, as purchased	123.25	55.91					
	Prunes, dried			50.50	22.91	1.8		62.2
	Sugar			14.25	6.46			100.0
288	Prunes, stewed, as purchased	109.75	49.78					
	Prunes, dried			51.00	23.13	1.8		62.2
	Sugar			15.50	7.03			100.0
289	Prunes, stewed, as purchased	96.75	43.89					
	Prunes, dried			47.75	21.66	1.8		62.2
	Sugar			11.25	5.10			100.0
290	Prunes, stewed, as purchased	502.00	227.71					
	Prunes, dried			200.00	90.72	1.8		62.2
	Sugar			48.00	21.77			100.0
294	Apple sauce	19.00	8.62					
	Apples, as purchased			13.50	6.12	.3	.3	10.8
	Sugar			3.75	1.70			100.0
295	Apple sauce	21.50	9.75					
	Apples, edible portion			19.50	8.85	.4	.5	14.2
	Lemons, as purchased			.50	.23	.7	.5	5.9
	Sugar			3.00	1.36			100.0
296	Apple sauce	18.50	8.39					
	Apples, edible portion			11.00	4.99	.4	.5	14.2
	Sugar			2.00	.91			100.0
297	Apple sauce	25.50	11.57					
	Apples, edible portion			22.00	9.98	.4	.5	14.2
	Sugar			6.00	2.72			100.0
298	Apple sauce	17.00	7.71					
	Apples, edible portion			12.50	5.67	.4	.5	14.2
	Sugar			4.00	1.81			100.0
299	Apple sauce	32.75	14.86					
	Apples, edible portion			17.50	7.94	.4	.5	14.2
	Sugar			4.75	2.15			100.0
	Apple sauce (from another lot)			10.50	4.76	.4	.4	
300	Apple sauce (from evaporated apples)	433.00	196.41					
	Apples, evaporated			100.00	45.36	1.6	2.2	66.1
	Sugar			65.00	29.48			100.0
303	Cranberry sauce	23.25	10.55					
	Cranberries, as purchased			13.50	6.12	.4	.6	9.9
	Sugar			5.75	2.61			100.0
304	Peach sauce (from evaporated peaches)	103.75	47.06					
	Peaches, evaporated			50.00	22.68	4.7	1.0	62.5
	Sugar			7.50	3.40			100.0
305	Peach sauce (from evaporated peaches)	32.50	14.74					
	Peaches, evaporated			10.00	4.54	4.7	1.0	62.5
	Sugar			2.25	1.02			100.0
306	Peach sauce (from evaporated peaches)	452.00	205.03					
	Peaches, evaporated			150.00	68.04	4.7	1.0	62.5
	Sugar			60.00	27.22			100.0
308	Hash	56.00	25.40					
	Beef, boiled, as purchased (as boiled beef, canned)			25.00	11.34	25.5	22.5	
	Onions			1.50	.68	1.6	.3	9.9
	Potatoes, boiled			26.75	12.13	2.5	.1	20.9
309	Hash, baked	132.00	59.88					
	Beef, boiled, edible portion			48.00	22.77	29.3	33.1	
	Potatoes, steamed			56.00	25.40	2.4		20.1
	Onions, tops			3.50	1.59	1.0	.1	11.2
	Fat gravy			21.00	9.53		75.0	
	Bread crumbs (as bread)			2.00	.91	9.2	1.3	53.1
310	Liver and bacon, fried	10.00	4.54					
	Liver			5.50	2.50	20.7	4.5	1.5
	Bacon, fat, edible portion			14.50	6.58	9.9	67.4	
	Fat cooked out			6.00	2.72		100.0	
311	Meat pie	49.50	22.45					
	Stew beef and pork, chopped							
	Average of beef and pork side			21.00	9.53	13.6	38.7	

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
		Lbs.	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
311	Meat pie—Continued.							
	Potatoes, edible portion			15.00	6.80	2.2	0.1	18.4
	Flour			7.25	3.29	11.4	1.0	75.1
	Lard			2.50	1.13	.....	100.0	.....
312	Beef stew	42.50	19.28					
	Beef, side, edible portion			21.25	9.61	18.1	22.0	.....
	Potatoes, edible portion			11.50	5.22	2.2	.1	18.1
	Flour			2.00	.91	11.4	1.0	75.1
313	Beef, stew	218.00	98.89					
	Beef (average of several computations)			61.00	27.67	28.5	30.5	.....
	Beef, lean (as round), edible portion			6.50	2.95	22.6	2.8	.....
	Potatoes, boiled, as purchased			13.75	6.24	2.5	.1	20.9
	Flour			12.50	5.67	11.4	1.0	75.1
	Onions			2.50	1.13	1.6	.3	9.9
	Potatoes			27.25	12.36	2.2	.1	18.4
314	Beef, stew	207.50	94.12					
	Beef, boiled, edible portion (as No. 5)			57.50	26.08	30.5	30.6	.....
	Flour			14.75	6.69	11.4	1.0	75.1
	Potatoes			30.00	13.61	2.2	.1	18.4
	Onions			2.75	1.25	1.6	.3	9.9
315	Beef, stew	226.50	102.74					
	Beef, boiled, edible portion (as No. 5)			29.25	13.27	30.5	30.6	.....
	Potatoes, edible portion			31.00	14.06	2.2	.1	18.4
	Beef, boiled, edible portion			35.50	16.10	31.8	28.3	.....
	Onions, edible portion			2.00	.91	1.6	.3	9.9
	Flour			16.50	7.49	11.4	1.0	75.1
317	Mutton, stew	49.00	22.23					
	Mutton, neck, as purchased			28.75	13.01	12.3	17.9	.....
	Potatoes			17.25	7.82	2.2	.1	18.4
	Flour			1.25	.57	11.4	1.0	75.1
	Fat cooked out			1.50	.68	.....	100.0	.....
319	Chicken, creamed	25.75	11.68					
	Chicken, fricasseed			8.00	3.63	17.6	11.5	2.4
	Milk			12.00	5.44	3.3	4.0	5.0
	Butter			.25	.11	1.0	85.0	.....
321	Oysters, creamed	19.75	8.96					
	Oysters, solids			9.50	4.31	6.0	1.3	3.3
	Milk			7.50	3.40	3.3	4.0	5.0
	Butter			1.00	.45	1.0	85.0	.....
	Flour			.75	.34	11.4	1.0	75.1
323	Oyster stew	44.75	20.30					
	Oysters, solids			15.00	6.80	6.0	1.3	3.3
	Milk			26.25	11.91	3.3	4.0	5.0
	Butter			.50	.23	1.0	85.0	.....
326	Oyster soup	92.50	41.96					
	Oysters, solids			12.75	5.78	6.0	1.3	3.3
	Flour			1.10	.50	11.4	1.0	75.1
	Milk			41.75	18.94	3.3	4.0	5.0
	Butter			.50	.23	1.0	85.0	.....
328	Sauce, for halibut	10.00	4.53					
	Eggs, as purchased			2.00	.91	13.1	9.3	.....
	Milk			3.00	1.36	3.3	4.0	5.0
	Flour			.50	.23	11.4	1.0	75.1
	Butter			.75	.34	1.0	85.0	.....
329	Gravy	7.25	3.29					
	Juice and fat from fried steak[a]							
	Butter			.75	.34	1.0	85.0	.....
	Flour			.50	.23	11.4	1.0	75.1
330	Onion sauce (for steak)	8.75	3.97					
	Onions			1.15	.52	1.6	.3	9.9
	Juice and fat from steak[a]							
331	Griddle cakes	2.15	.98					
	Milk			1.00	.45	3.3	4.0	5.0
	Flour			1.00	.45	11.4	1.0	75.1
	Rice, boiled			.15	.07	1.2	.....	12.1
333	Macaroni and cheese, baked	20.00	9.07					
	Cheese			2.75	1.25	25.9	33.7	2.4
	Macaroni			3.25	1.47	13.4	.9	74.1
	Milk			7.50	3.40	3.3	4.0	5.0
	Flour			.60	.27	11.4	1.0	75.1
334	Macaroni and tomatoes	59.25	26.88					
	Macaroni			12.00	5.44	13.4	.9	74.1
	Tomatoes, canned			19.15	8.69	1.2	.2	4.0

[a] The nutrients in these materials could not be calculated.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
334	Macaroni and tomatoes—Continued.	*Lbs.*	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
	Flour			2.25	1.02	11.4	1.0	75.1
	Butter			.25	.11	1.0	85.0	
335	Muffins	12.25	5.56					
	Butter			.75	.34	1.0	85.0	
	Lard			.75	.34		100.0	
	Eggs, edible portion			2.50	1.13	14.8	10.5	
	Flour			6.00	2.72	11.4	1.0	75.1
	Milk			5.00	2.27	3.3	4.0	5.0
336	Custard, plain, baked	18.00	8.17					
	Sugar			2.25	1.02			100.0
	Eggs, edible portion			3.25	1.47	14.8	10.5	
	Milk			14.25	6.46	3.3	4.0	5.0
337	Custard, chocolate	28.75	13.04					
	Milk			22.00	9.98	3.3	4.0	5.0
	Chocolate			1.00	.45	12.9	48.7	30.3
	Eggs (whites only)			3.60	1.63	13.0	.2	
	Sugar			3.25	1.47			100.0
338	Custard sauce for jelly	10.75	4.88					
	Milk			4.25	1.93	3.3	4.0	5.0
	Sugar			1.50	.68			100.0
	Eggs, as purchased			3.00	1.36	13.1	9.3	
340	Caramel ice cream	34.50	15.65					
	Sugar			6.00	2.72			100.0
	Milk			25.50	11.57	3.3	4.0	5.0
	Eggs, as purchased			3.75	1.70	13.1	9.3	
341	Lemon ice	12.25	5.56					
	Lemon juice			1.50	.68			9.8
	Sugar			10.00	4.54			100.0
	Eggs (whites)			.75	.34	13.0	.2	
342	Lemon jelly	29.00	13.15					
	Gelatin			1.00	.45	91.4	.1	
	Lemon juice			1.00	.45			9.8
	Sugar			4.50	2.04			100.0
	Wine, sherry [a]			1.50	.68			34.0
344	Apple pie	25.50	11.57					
	Apples, edible portion			19.00	8.62	.4	.5	14.2
	Flour			3.75	1.70	11.4	1.0	75.1
	Lard			1.60	.73		100.0	
	Sugar			1.90	.86			100.0
350	Rhubarb pie	269.50	122.25					
	Rhubarb, canned			103.00	46.72	.6	.7	3.6
	Sugar			24.00	10.89			100.0
	Flour			60.00	27.22	11.4	1.0	75.1
	Lard			30.00	13.61		100.0	
353	Pudding, bread	228.50	103.65					
	Currants, dried			4.75	2.15	2.4	1.7	74.2
	Raisins, as purchased			1.50	.68	2.3	3.0	68.5
	Sugar			20.50	9.30			100.0
	Eggs, as purchased			6.00	2.72	13.1	9.3	
	Cream, evaporated			7.50	3.40	9.6	9.3	11.2
	Butter			3.88	1.76	1.0	85.0	
	Bread			46.50	21.09	9.2	1.3	53.1
354	Pudding, chocolate	25.50	11.57					
	Milk			21.75	9.87	3.3	4.0	5.0
	Chocolate			.75	.34	12.9	48.7	30.3
	Sugar			2.75	1.25			100.0
	Cornstarch			1.50	.68			90.0
355	Pudding, chocolate	24.35	11.05					
	Milk			23.25	10.55	3.3	4.0	5.0
	Sugar			3.25	1.47			100.0
	Chocolate			1.00	.45	12.9	48.7	30.3
	Cornstarch			1.35	.61			90.0
359	Pudding, cottage	13.50	6.12					
	Butter			1.35	.61	1.0	85.0	
	Sugar			1.25	1.93			100.0
	Milk			2.75	1.25	3.3	4.0	5.0
	Eggs, as purchased			1.95	.89	13.1	9.3	
	Flour			5.00	2.27	11.4	1.0	75.1
360	Pudding, floating island	25.00	11.31					
	Milk			20.00	9.07	3.3	4.0	5.0
	Eggs, as purchased			3.75	1.70	13.1	9.3	
	Cornstarch			.50	.23			90.0
	Sugar			2.50	1.13			100.0
361	Pudding, floating island	29.50	13.38					
	Sugar			3.25	1.47			100.0
	Milk			22.75	10.32	3.3	4.0	5.0

[a] Percentage composition estimated.

TABLE 38.—*Data for computing percentage composition of cooked foods used in the dietary studies*—Continued.

Reference No.	Kinds of cooked food and of ingredients.	Total weight of cooked food.		Weight of ingredients.		Percentage composition of ingredients.		
						Protein.	Fat.	Carbohydrates.
361	Pudding, floating island—Continued.	*Lbs.*	*Kilos.*	*Lbs.*	*Kilos.*	*Per ct.*	*Per ct.*	*Per ct.*
	Eggs, edible portion			3.50	1.59	14.8	10.5	
	Cornstarch			1.45	.66			90.0
	Flour			1.25	.57	11.4	1.0	75.1
363	Pudding, junket	33.75	15.31					
	Junket tablets[a]							
	Milk			24.00	10.89	3.3	4.0	5.0
	Sugar			1.25	.57			100.0
	Cherries, preserved			1.50	.68	1.0		60.0
	Oranges, edible portion			7.00	3.18	.8	.2	11.6
364	Pudding, rice	29.50	13.38					
	Milk			16.75	7.60	3.3	4.0	5.0
	Eggs, as purchased			3.25	1.47	13.1	9.3	
	Rice, boiled			11.00	4.99	1.3		13.0
	Lemon juice							9.8
	Sugar			2.50	1.13			100.0
365	Pudding, rice	130.75	59.31					
	Rice			10.00	4.54	8.0	.3	79.0
	Eggs, as purchased			14.25	6.46	13.1	9.3	
	Sugar			13.75	6.24			100.0
	Milk			53.50	24.27	3.3	4.0	5.0
	Milk, condensed			9.75	4.42	8.8	8.3	54.1
366	Pudding, steamed	110.00	49.90					
	Cream, evaporated			5.75	2.61	9.6	9.3	11.2
	Flour			24.25	11.00	11.4	1.0	75.1
	Suet			10.25	4.65	4.7	81.8	
	Currants, dried			21.25	9.64	2.4	1.7	74.2
	Bread			10.00	4.54	9.2	1.3	53.1
	Raisins, edible portion			5.00	2.27	2.6	3.3	76.1
	Molasses			8.75	3.97			70.0
	Sugar			9.75	4.42			100.0
367	Pudding, fruit, steamed	318.50	144.47					
	Bread, dry			39.00	17.69	11.5	1.6	61.2
	Currants, dry			50.00	22.68	2.4	1.7	74.2
	Molasses			69.00	31.30			70.0
	Raisins, edible portion			28.50	12.93	2.6	3.3	76.1
	Sugar			10.00	4.54			100.0
	Suet			15.75	7.14	4.7	81.8	
	Milk			48.00	21.77	3.3	4.0	5.0
	Flour			44.50	20.19	11.4	1.0	75.1
369	Lemon sauce (for pudding)	11.50	5.22					
	Eggs, edible portion			1.50	.68	14.8	10.5	
	Lemons, as purchased			3.00	1.36	.7	.5	5.9
	Sugar			2.00	.91			100.0
370	Sauce, for pudding	10.75	4.88					
	Butter			.45	.20	1.0	85.0	
	Eggs, as purchased			1.00	.45	13.1	9.3	
	Sugar			1.50	.68			100.0
371	Sauce, for pudding	8.00	3.63					
	Milk			6.00	2.72	3.3	4.0	5.0
	Eggs, edible portion			1.25	.57	14.8	10.5	
	Sugar			1.00	.45			100.0

[a] The nutrients in these materials could not be calculated.

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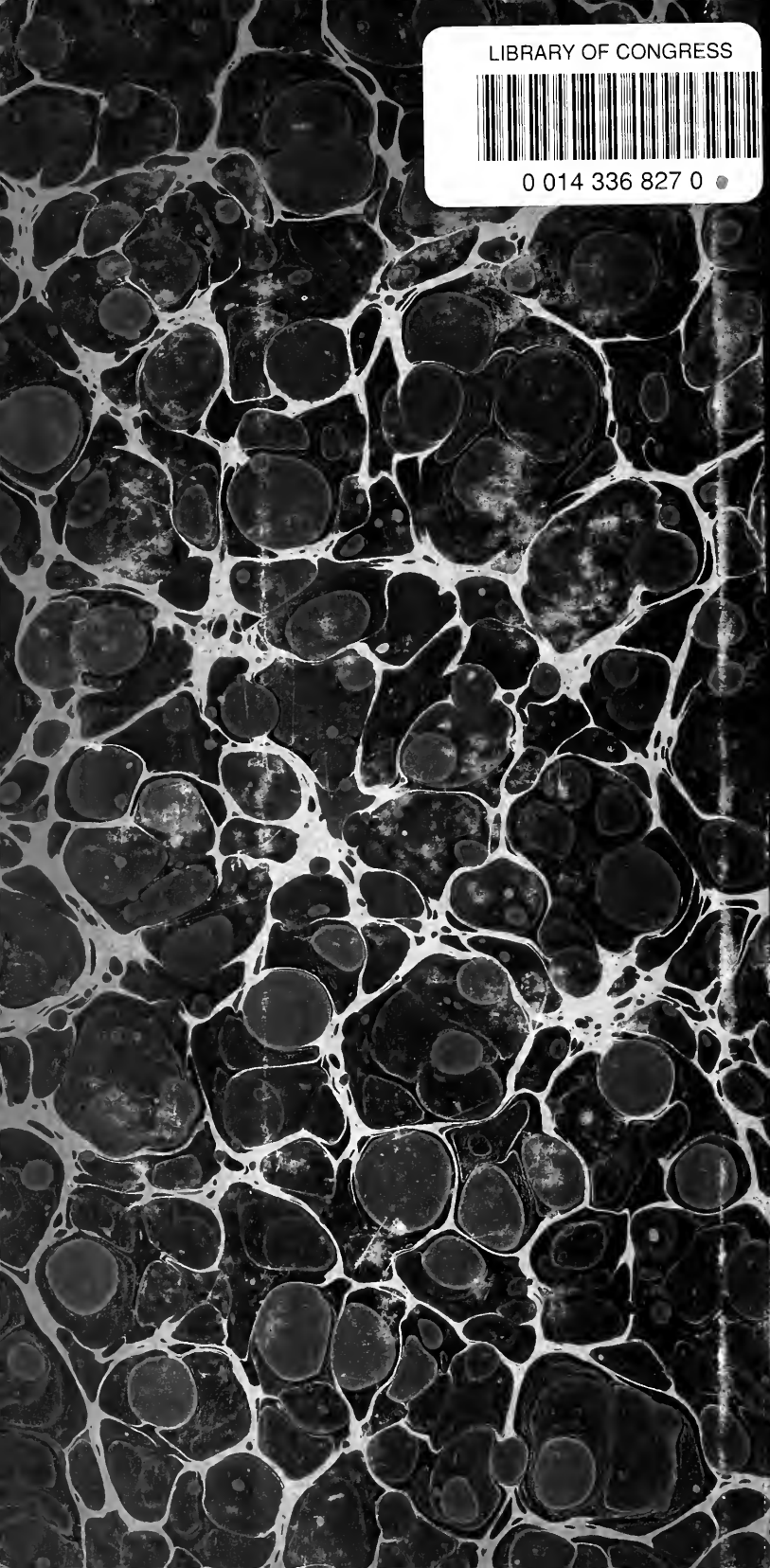
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